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AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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=> s inhal? and (powder or particulat? or pellet)
L1 32803 INHAL? AND (POWDER OR PARTICULAT? OR PELLET)

=> s l1 and tiotropium

L2 117 L1 AND TIOTROPIUM

=> s 13 and (chloride or bromide or iodide methanesulphonate or paratoluenesulphonate or (methyl sulphate))

L4

=> d 14 1-12 ibib abs

ANSWER 1 OF 12 USPATFULL

ACCESSION NUMBER: 2003:24176 USPATFULL

TITLE:

Pharmaceutical compositions based on anticholinergics,

corticosteroids and betamimetics

INVENTOR(S):

Meade, Christopher J.M., Bingen, GERMANY, FEDERAL

REPUBLIC OF

Pairet, Michel, Biberach, GERMANY, FEDERAL REPUBLIC OF Pieper, Michael P., Bingen, GERMANY, FEDERAL REPUBLIC

PATENT ASSIGNEE(S):

Boehringer Ingelheim Pharma KG, Ingelheim, GERMANY,

FEDERAL REPUBLIC OF (non-U.S. corporation)

NUMBER KIND DATE -----PATENT INFORMATION: US 2003018019 A1 20030123 APPLICATION INFO.: US 2002-173194 A1 20020617 (10)

NUMBER DATE PRIORITY INFORMATION: DE 2001-130371 20010623 US 2001-304148P 20010710 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

P. O. BOX 368, RIDGEFIELD, CT, 06877 LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT:

1170

The present invention relates to novel pharmaceutical compositions based on anticholinergics, corticosteroids and betamimetics, processes for preparing them and their use in the treatment of respiratory diseases.

L4 ANSWER 2 OF 12 USPATFULL

ACCESSION NUMBER: 2002:338027 USPATFULL

TITLE:

Compounds for treating inflammatory diseases

INVENTOR(S):

Disse, Bernd, Mainz, GERMANY, FEDERAL REPUBLIC OF

NUMBER KIND DATE _____ US 2002193394 A1 20021219 US 2002-96810 A1 20020313 (10) PATENT INFORMATION: APPLICATION INFO.:

DATE NUMBER PRIORITY INFORMATION:

DE 2001-111843 20010313 US 2001-281876P 20010405 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Utility APPLICATION

P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS: 8

EXEMPLARY CLAIM: 1 LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

NUMBER OF DRAWINGS:

3 Drawing Page(s)

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to the use of (1.alpha..2.beta.,4.beta..5.alpha..7 AB

.beta.)-7-[(hydroxydi-2-thienylacetyl)oxy]-9,9-dimethyl-3-oxa-9-

azoniatricyclo[3.3.1.0.sup.2,4] nonane salts for preparing a

pharmaceutical composition for the prevention and treatment of diseases

associated with inflammation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 12 USPATFULL

ACCESSION NUMBER: 2002:338026 USPATFULL

Pharmaceutical compositions based on anticholinergics TITLE:

and PDE-IV inhibitors

Pairet, Michel, Biberach, GERMANY, FEDERAL REPUBLIC OF INVENTOR(S):

Meade, Christopher J. M., Bingen, GERMANY, FEDERAL

REPUBLIC OF

Pieper, Michael P., Bingen, GERMANY, FEDERAL REPUBLIC

NUMBER KIND DATE

PATENT INFORMATION: US 2002193393 A1 20021219
APPLICATION INFO.: US 2002-93240 A1 20020307 (10)

NUMBER DATE

PRIORITY INFORMATION: DE 2001-110772 20010307 US 2001-281857P 20010405 (60)

Utility APPLICATION DOCUMENT TYPE: FILE SEGMENT:

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

P. O. BOX 368, RIDGEFIELD, CT, 06877

13 NUMBER OF CLAIMS: 1 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 1018

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to novel pharmaceutical compositions based

on anticholinergics and PDE-IV inhibitors, processes for preparing them

and their use in the treatment of respiratory tract diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 4 OF 12 USPATFULL

ACCESSION NUMBER: 2002:338025 USPATFULL

TITLE: Pharmaceutical compositions based on tiotropium

salts of salts of salmeterol

INVENTOR(S): Schmelzer, Christel, Ingelheim, GERMANY, FEDERAL

REPUBLIC OF

Nagel, Juergen, Bad Kreuznach, GERMANY, FEDERAL

REPUBLIC OF

NUMBER KIND DATE US 2002193392 A1 20021219 US 2001-54567 A1 20011113 (10) PATENT INFORMATION:

APPLICATION INFO.:

DATE NUMBER ______

PRIORITY INFORMATION: DE 2000-10056104 20001113

US 2000-251603P 20001206 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD, LEGAL REPRESENTATIVE:

P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

46 1

NUMBER OF DRAWINGS:

2 Drawing Page(s)

LINE COUNT:

936

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A pharmaceutical composition, comprising: (a) a tiotropium

salt (1); and (b) a salmeterol salt (2), optionally in the form of the enantiomers, mixtures of enantiomers, or in the form of the racemates

thereof, optionally in the form of the solvates or hydrates and optionally together with a pharmaceutically acceptable excipient, and methods of treating respiratory diseases using such a pharmaceutical

composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 5 OF 12 USPATFULL

ACCESSION NUMBER:

2002:323179 USPATFULL

TITLE:

Pharmaceutical compositions based on anticholinergics

and endothelin antagonists

INVENTOR(S):

Meade, Christopher J. M., Bingen, GERMANY, FEDERAL

REPUBLIC OF

Pairet, Michel, Biberach, GERMANY, FEDERAL REPUBLIC OF Pieper, Michael P., Bingen, GERMANY, FEDERAL REPUBLIC

NUMBER KIND DATE

PATENT INFORMATION:

US 2002183347 A1 20021205 US 2002-100659 A1 20020318 (10)

APPLICATION INFO.:

NUMBER DATE

PRIORITY INFORMATION:

DE 2001-113366 20010320

US 2001-281874P 20010405 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

15 1

NUMBER OF DRAWINGS:

3 Drawing Page(s)

LINE COUNT:

943

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to novel pharmaceutical compositions based AΒ on anticholinergics and endothelin antagonists, processes for preparing them and their use in the treatment of respiratory tract diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 6 OF 12 USPATFULL

ACCESSION NUMBER:

2002:323126 USPATFULL

TITLE:

Pharmaceutical compositions based on anticholinergics

and corticosteroids

INVENTOR(S):

Pairet, Michel, Biberach, GERMANY, FEDERAL REPUBLIC OF Pieper, Michael P., Bingen, GERMANY, FEDERAL REPUBLIC

Meade, Christopher John Montague, Bingen, GERMANY,

FEDERAL REPUBLIC OF

Reichl, Richard, Gau-Algesheim, GERMANY, FEDERAL

REPUBLIC OF

Schmelzer, Christel, Ingelheim, GERMANY, FEDERAL

REPUBLIC OF

NUMBER KIND DATE ______ US 2002183292 A1 20021205 US 2001-86145 A1 20011019 (10) PATENT INFORMATION:

US 2001-86145 APPLICATION INFO .:

> NUMBER DATE _____

DE 2000-10054042 20001031 PRIORITY INFORMATION:

DE 2000-10062712 20001215 US 2000-257220P 20001221 (60) US 2000-253613P 20001128 (60)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS: 66

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 989

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A pharmaceutical composition comprising an anticholinergic and a steroid, optionally together with a pharmaceutically acceptable

excipient, the anticholinergic and the steroid optionally in the form of their enantiomers, mixtures of their enantiomers, their racemates, their solvates, or their hydrates, processes for preparing them, and their use in the treatment of respiratory tract diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 7 OF 12 USPATFULL

ACCESSION NUMBER: 2002:301636 USPATFULL

Pharmaceutical compositions based on anticholinergics TITLE:

and NK1-receptor antagonists

INVENTOR(S): Pairet, Michel, Biberach, GERMANY, FEDERAL REPUBLIC OF

Pieper, Michael P., Bingen, GERMANY, FEDERAL REPUBLIC

Meade, Christopher J. M., Bingen, GERMANY, FEDERAL

REPUBLIC OF

NUMBER KIND DATE -----US 2002169181 A1 20021114 US 2002-92116 A1 20020306 (10) PATENT INFORMATION: APPLICATION INFO.:

NUMBER DATE ______ DE 2001-DE111058 20010308 PRIORITY INFORMATION: US 2001-281653P 20010405 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS: 14 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s) LINE COUNT: 1338

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to novel pharmaceutical compositions based on anticholinergics and NK.sub.1-receptor antagonists, processes for

preparing them and their use in the treatment of respiratory tract diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 8 OF 12 USPATFULL

ACCESSION NUMBER:

2002:273413 USPATFULL

TITLE:

Pharmaceutical compositions containing

tiotropium salts and antihistamines and their

use

INVENTOR(S):

Pairet, Michel, Stromberg, GERMANY, FEDERAL REPUBLIC OF

Pieper, Michael P., Ingelheim, GERMANY, FEDERAL

REPUBLIC OF

Meade, Christopher John Montague, Bingen, GERMANY,

FEDERAL REPUBLIC OF

Schmelzer, Christel, Ingelheim, GERMANY, FEDERAL

REPUBLIC OF

DATE NUMBER KIND ______

PATENT INFORMATION: APPLICATION INFO.:

US 2002151541 A1 20021017 US 2001-7182 A1 20011019 (10)

NUMBER DATE -----

PRIORITY INFORMATION: DE 2000-10054042 20001031 DE 2001-138272 20010810 US 2000-253613P 20001128 (60) US 2001-314599P 20010824 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

P. O. BOX 368, RIDGEFIELD, CT, 06877

58 NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

3 Drawing Page(s)

LINE COUNT:

1074

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A pharmaceutical composition comprising a tiotropium salt; and

an antihistamine, optionally together with a pharmaceutically acceptable

excipient, the tiotropium salt and the antihistamine

optionally in the form of their enantiomers, mixtures of their enantiomers, their racemates, their solvates, or their hydrates, processes for preparing them, and their use in the treatment of

respiratory tract diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 9 OF 12 USPATFULL

ACCESSION NUMBER:

2002:227675 USPATFULL

TITLE:

Solid peptide preparations for inhalation and

their preparation

INVENTOR(S):

Lizio, Rosario, Buttelborn, GERMANY, FEDERAL REPUBLIC

Damm, Michael, Rodermark, GERMANY, FEDERAL REPUBLIC OF

Sarlikiotis, Werner, Peania, GREECE

Wolf-Heuss, Elisabeth, Mosbach, GERMANY, FEDERAL

REPUBLIC OF

NUMBER KIND DATE -----

PATENT INFORMATION:

US 2002122826 A1 20020905

APPLICATION INFO.: US 2001-944060 A1 20010831 (9)

NUMBER DATE

DE 2000-10043509 20000901 PRIORITY INFORMATION:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: Goodwin Procter L.L.P., 599 Lexington Avenue, 40th

floor, New York, NY, 10022

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s)

764 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to solid pharmaceutical preparations, in particular for inhalatory administration in mammals, their preparation and their use such as, for example, in powder

inhalers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 10 OF 12 USPATFULL

ACCESSION NUMBER: 2002:227622 USPATFULL

TITLE: Pharmaceutical compositions based on anticholinergics

and dopamine agonists

INVENTOR(S): Pairet, Michel, Stromberg, GERMANY, FEDERAL REPUBLIC OF

Pieper, Michael P., Ingelheim, GERMANY, FEDERAL

REPUBLIC OF

Montague Meade, Christopher J., Bingen, GERMANY,

FEDERAL REPUBLIC OF

NUMBER KIND DATE -----PATENT INFORMATION: US 2002122773 A1 20020905 APPLICATION INFO.: US 2001-27662 A1 20011220 (10)

NUMBER DATE -----

PRIORITY INFORMATION: DE 2000-DE10063957 20001220 US 2000-257221P 20001221 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD, P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 1016

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to novel pharmaceutical compositions based on anticholinergics and dopamine agonists, processes for preparing them and their use in the treatment of respiratory tract diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 11 OF 12 USPATFULL

ACCESSION NUMBER: 2002:205842 USPATFULL TITLE: Inhalable powder containing

tiotropium

INVENTOR(S): Bechtold-Peters, Karoline, Biberach, GERMANY, FEDERAL

REPUBLIC OF

Walz, Michael, Bingen, GERMANY, FEDERAL REPUBLIC OF

Boeck, Georg, Mainz, GERMANY, FEDERAL REPUBLIC OF Doerr, Rolf, Ober-Olm, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002110529	A1	20020815	(9)
APPLICATION INFO.:	US 2001-975418	A1	20011011	

DATE NUMBER ______

DE 2000-DE10050635 20001012 PRIORITY INFORMATION:

US 2000-252683P 20001122 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

P. O. BOX 368, RIDGEFIELD, CT, 06877 LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

NUMBER OF CLAIMS: EXEMPLARY CLAIM: LINE COUNT: 561

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to powdered preparations containing

tiotropium for inhalation, processes for preparing

them as well as their use in preparing a pharmaceutical composition for the treatment of respiratory complaints, particularly for the treatment

of COPD (chronic obstructive pulmonary disease) and asthma.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 12 OF 12 USPATFULL

2002:198239 USPATFULL ACCESSION NUMBER:

TITLE: Process for preparing powder formulations

Walz, Michael, Bingen, GERMANY, FEDERAL REPUBLIC OF INVENTOR(S):

Boeck, Georg, Mainz, GERMANY, FEDERAL REPUBLIC OF

NUMBER KIND DATE _____ US 2002106332 A1 20020808 US 2001-977911 A1 20011011 PATENT INFORMATION: APPLICATION INFO.: A1 20011011 (9)

> NUMBER DATE

PRIORITY INFORMATION: DE 2000-DE10050635 20001012

DE 2001-DE138022 20010810

US 2000-252683P 20001122 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: BOEHRINGER INGELHEIM CORPORATION, 900 RIDGEBURY ROAD,

P. O. BOX 368, RIDGEFIELD, CT, 06877

NUMBER OF CLAIMS: 15 EXEMPLARY CLAIM: 1 LINE COUNT: 650

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to a new process for producing powdered

preparations for inhalation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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NEWS 8 MAR 03
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                WPIFV now available on STN
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NEWS 11 MAR 29
                New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 12 APR 26
                PROMT: New display field available
NEWS 13 APR 26
                IFIPAT/IFIUDB/IFICDB: New super search and display field
                available
NEWS 14 APR 26
                LITALERT now available on STN
NEWS 15 APR 27
                NLDB: New search and display fields available
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        May 10
                PROUSDDR now available on STN
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        May 19
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                and June 2004
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             CAS World Wide Web Site (general information)
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=> s inhalant and (tiotropium or (tiotropium bromide) or (tiotropium bromide monhydrate))

L1 60 INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPIUM BROMIDE MONHYDRATE))

=> s 12 and powder?

L3 19 L2 AND POWDER?

=> s 13 and capsule?

L4 13 L3 AND CAPSULE?

=> s 14 and (COPD or asthma)

L5 5 L4 AND (COPD OR ASTHMA)

=> s 15 and (method or process) and (making or preparation or manufacture)
6 FILES SEARCHED...

L6 2 L5 AND (METHOD OR PROCESS) AND (MAKING OR PREPARATION OR MANUFA CTURE)

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L6 ANSWER 1 OF 2 USPATFULL on STN

The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

ANSWER 2 OF 2 EUROPATFULL COPYRIGHT 2004 WILA on STN

A pharmaceutical composition for topical administration for prevention and/or treatment of diseases associated with decrease in bone mass comprising an EP.sub4. agonist as an active ingredient. An EP.sub4. agonist, in which includes a compound possessing prostaglandin skeleton as a representative, possesses promoting action on bone formation, so it is useful for prevention and/or treatment of diseases associated with decrease in bone mass (bone diseases such as primary osteoporosis, secondary osteoporosis, bone metastasis of cancer, hypercalcemia, Paget's disease, bone loss and bone necrosis, postoperative osteogenesis, alternative therapy for bone grafting).

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L6 ANSWER 1 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States

PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and AB methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

ANSWER 2 OF 2 EUROPATFULL COPYRIGHT 2004 WILA on STN L6

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

1417975 EUROPATFULL EW 200420 FS OS ACCESSION NUMBER:

TITLE: REMEDIES FOR DISEASES WITH BONE MASS LOSS HAVING EP4

AGONIST AS THE ACTIVE INGREDIENT.

MITTEL ZUR BEHANDLUNG VON ERKRANKUNGEN, DIE MIT KNOCHENSCHWUND EINHERGEHEN, MIT EP4 AGONIST ALS

WIRKSTOFF.

MEDICAMENTS CONTENANT UN AGONISTE DE EP4 EN TANT QUE PRINCIPE ACTIF DESTINES AUX MALADIES ASSOCIEES A UNE

PERTE DE LA MASSE OSSEUSE.

INVENTOR(S): MARUYAMA, Toru, c/o Minase Res. Inst., Ono Pharm., Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KOBAYASHI, Kaoru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KAMBE, Tohru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

MARUYAMA, Takayuki, c/o Minase Res. Inst., Ono Pha, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Miishima-gun,

Osaka 618-8585, JP;

YOSHIDA, Hideyuki, c/o Minase Res Inst, Ono Pharm., Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

NISHIURA, Akio, c/o Minase Res Inst., Ono Pharm, Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

ABE, Nobutaka, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP

PATENT ASSIGNEE(S): ONO PHARMACEUTICAL CO., LTD., 1-5, Doshomachi 2-chome,

Chuo-ku, Osaka-shi, Osaka 541-8526, JP

PATENT ASSIGNEE NO: 435424

AGENT: Henkel, Feiler & Haenzel, Moehlstrasse 37, 81675

Muenchen, DE

AGENT NUMBER: 100401

OTHER SOURCE: MEPA2004039 EP 1417975 A1 0322

SOURCE: Wila-EPZ-2004-H20-T1b

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Japanisch; Veroeffentlichung in Englisch;

Verfahren in Englisch

DESIGNATED STATES: R AT; R BE; R BG; R CH; R CY; R CZ; R DE; R DK; R EE; R

> ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R SK; R TR; R AL; R LT; R LV; R

MK; R RO; R SI

PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale

Anmeldung)

PATENT INFORMATION:

PATENT NO KIND DATE ------

EP 1417975 A1 20040512

'OFFENLEGUNGS' DATE: 20040512 APPLICATION INFO.: EP 2002-747707 20020722

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PRIORITY APPLN. INFO.: JP 2001-2001222148
                                              20010723
                       JP 2001-2001239895
                                              20010807
                      JP 2002-2002056449
                                              20020301
RELATED DOC. INFO.:
                      WO 02-JP7385
                                         020722 INTAKZ
                      WO 2003009872
                                         030206 INTPNR
ABEN
       A pharmaceutical composition for topical administration for prevention
       and/or treatment of diseases associated with decrease in bone mass
       comprising an EP.sub4. agonist as an active ingredient. An EP.sub4.
       agonist, in which includes a compound possessing prostaglandin skeleton
       as a representative, possesses promoting action on bone formation, so it
       is useful for prevention and/or treatment of diseases associated with
       decrease in bone mass (bone diseases such as primary osteoporosis,
       secondary osteoporosis, bone metastasis of cancer, hypercalcemia,
       Paget's disease, bone loss and bone necrosis, postoperative
       osteogenesis, alternative therapy for bone grafting).
=> d his
     (FILE 'HOME' ENTERED AT 16:10:09 ON 10 JUN 2004)
     FILE 'CAPLUS, USPATFULL, EUROPATFULL, JAPIO, MEDLINE, BIOSIS, EMBASE'
     ENTERED AT 16:10:45 ON 10 JUN 2004
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L1
L2
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L3
            19 S L2 AND POWDER?
T.4
            13 S L3 AND CAPSULE?
L5
             5 S L4 AND (COPD OR ASTHMA)
1.6
             2 S L5 AND (METHOD OR PROCESS) AND (MAKING OR PREPARATION OR MAN
=> d 15 1-5
L5
    ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN
     2003:757705 CAPLUS
DΝ
     139:265796
TI
    Preparation of micronized crystalline tiotropium bromide
    monohydrate and formulation as inhalant to treat asthma
     and COPD
IN
    Bender, Helmut; Graebner, Hagen; Schindler, Konrad; Trunk, Michael Josef
     Friedrich; Walz, Michael
PA
    Boehringer Ingelheim Pharma Gmbh & Co. Kg, Germany
     PCT Int. Appl., 31 pp.
SO
     CODEN: PIXXD2
DТ
    Patent
    German
LΑ
FAN.CNT 1
                 KIND DATE
    PATENT NO.
                                        APPLICATION NO. DATE
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PΤ
    WO 2003078429
                    A1 20030925
                                         WO 2003-EP2422 20030310
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            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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            MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
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    DE 10212264
                      A1
                           20031002
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    US 2004002510
                      A1
                           20040101
                                          US 2003-385175 20030310
PRAI DE 2002-10212264 A
                           20020320
```

US 2002-413129P P

20020924

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN L5AN 2002:368320 CAPLUS DN 136:374855 TI Inhalant compositions containing tiotropium salts and salmeterol salts Schmelzer, Christel; Nagel, Juergen TN PA Boehringer Ingelheim Pharma K.-G., Germany SO PCT Int. Appl., 36 pp. CODEN: PIXXD2 DT Patent T.A German FAN.CNT 1 KIND DATE PATENT NO. APPLICATION NO. DATE -------------------ΡI WO 2002038154 20020516 WO 2001-EP12962 20011109 A1 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG DE 10056104 A1 20020523 DE 2000-10056104 20001113 AU 2002027910 20020521 **A5** AU 2002-27910 20011109 20030820 EP 1335728 A1 EP 2001-989446 20011109 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR BR 2001015226 Α 20031007 BR 2001-15226 20011109 EE 200300228 Α 20031015 EE 2003-228 20011109 JP 2004513146 T2 20040430 JP 2002-540737 20011109 US 2002193392 **A1** 20021219 US 2001-54567 20011113 NO 2003002111 Α 20030708 NO 2003-2111 20030512 PRAI DE 2000-10056104 A 20001113 US 2000-251603P Р 20001206 WO 2001-EP12962 W 20011109 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN 2001:689613 CAPLUS AN DN 136:390861 Effective delivery of particles with the HandiHaler dry TI powder inhalation system over a range of chronic obstructive pulmonary disease severity ΑIJ Chodosh, Sanford; Flanders, Judith S.; Kesten, Steven; Serby, Charles W.; Hochrainer, Dieter; Witek, Theodore J., Jr. Veterans Administration Outpatient Clinic, Pulmonary Research, Boston, MA, CS SO Journal of Aerosol Medicine (2001), 14(3), 309-315 CODEN: JAEMEP; ISSN: 0894-2684 PB Mary Ann Liebert, Inc. DT Journal LΑ English RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 4 OF 5 USPATFULL on STN L5 AN 2001:75378 USPATFULL Methods and compositions for the prevention of tolerance to medications TI

Ahmed, Tahir, Coral Gables, FL, United States

IN

```
PΑ
       Baker Norton Pharmaceuticals, Inc., Miami, FL, United States (U.S.
       corporation)
PΙ
       US 6235725
                          B1
                               20010522
                               19990728 (9)
       US 1999-362540
ΑI
       US 1998-106507P
                           19981030 (60)
PRAI
DT
       Utility
       Granted
FS
LN.CNT 985
       INCLM: 514/056.000
INCL
       INCLS: 514/023.000; 514/053.000; 514/054.000; 514/653.000; 514/826.000
NCL
              514/056.000
              514/023.000; 514/053.000; 514/054.000; 514/653.000; 514/826.000
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IC
       [7]
       ICM: A61K031-70
EXF
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L5
       ANSWER 5 OF 5 EUROPATFULL COPYRIGHT 2004 WILA on STN
PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET
AN
       1417975 EUROPATFULL ED 20040513 EW 200420 FS OS
TIEN
       REMEDIES FOR DISEASES WITH BONE MASS LOSS HAVING EP4 AGONIST AS THE
       ACTIVE INGREDIENT.
TIDE
       MITTEL ZUR BEHANDLUNG VON ERKRANKUNGEN, DIE MIT KNOCHENSCHWUND
       EINHERGEHEN, MIT EP4 AGONIST ALS WIRKSTOFF.
       MEDICAMENTS CONTENANT UN AGONISTE DE EP4 EN TANT QUE PRINCIPE ACTIF
TIFR
       DESTINES AUX MALADIES ASSOCIEES A UNE PERTE DE LA MASSE OSSEUSE.
IN
       MARUYAMA, Toru, c/o Minase Res. Inst., Ono Pharm., Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       KOBAYASHI, Kaoru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       KAMBE, Tohru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai
       3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       MARUYAMA, Takayuki, c/o Minase Res. Inst., Ono Pha, Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Miishima-gun, Osaka 618-8585, JP;
       YOSHIDA, Hideyuki, c/o Minase Res Inst, Ono Pharm., Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       NISHIURA, Akio, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai
       3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       ABE, Nobutaka, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai
       3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP
PA
       ONO PHARMACEUTICAL CO., LTD., 1-5, Doshomachi 2-chome, Chuo-ku,
       Osaka-shi, Osaka 541-8526, JP
SO
       Wila-EPZ-2004-H20-T1b
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       R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R SK; R TR;
       R AL; R LT; R LV; R MK; R RO; R SI
PIT
       EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale Anmeldung)
PΙ
       EP 1417975
                            A1 20040512
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                               20040512
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       EP 2002-747707
                               20020722
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       JP 2001-2001222148
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       JP 2001-2001239895
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       JP 2002-2002056449
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       WO 02-JP7385
                          020722 INTAKZ
       WO 2003009872
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       ICS
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                                          C07D207-27
                                                         C07D263-24
            C07C405-00
                           A61P019-08
                                          A61P019-10
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65.21 65.42 FULL ESTIMATED COST

FILE 'STNGUIDE' ENTERED AT 16:22:26 ON 10 JUN 2004 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION. LAST RELOADED: Jun 4, 2004 (20040604/UP).

=> file caplus uspatful japio europaftul biosis embase medline 'EUROPAFTUL' IS NOT A VALID FILE NAME Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files that are available. If you have requested multiple files, you can specify a corrected file name or you can enter "IGNORE" to continue accessing the remaining file names entered. ENTER A FILE NAME OR (IGNORE): europatful SINCE FILE ENTRY COST IN U.S. DOLLARS TOTAL

SESSION 0.66 FULL ESTIMATED COST 66.08

FILE 'CAPLUS' ENTERED AT 16:28:44 ON 10 JUN 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 16:28:44 ON 10 JUN 2004 CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'JAPIO' ENTERED AT 16:28:44 ON 10 JUN 2004 COPYRIGHT (C) 2004 Japanese Patent Office (JPO) - JAPIO

FILE 'EUROPATFULL' ENTERED AT 16:28:44 ON 10 JUN 2004 COPYRIGHT (c) 2004 WILA Verlag Muenchen (WILA)

FILE 'BIOSIS' ENTERED AT 16:28:44 ON 10 JUN 2004 COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC. (R)

FILE 'EMBASE' ENTERED AT 16:28:44 ON 10 JUN 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'MEDLINE' ENTERED AT 16:28:44 ON 10 JUN 2004

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(FILE 'HOME' ENTERED AT 16:10:09 ON 10 JUN 2004)

FILE 'CAPLUS, USPATFULL, EUROPATFULL, JAPIO, MEDLINE, BIOSIS, EMBASE' ENTERED AT 16:10:45 ON 10 JUN 2004

L1 60 S INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPI

L229 S L1 AND (PARTICLE# OR PARTICULATE#)

L3 19 S L2 AND POWDER?

L413 S L3 AND CAPSULE?

L5 5 S L4 AND (COPD OR ASTHMA)

1.6 2 S L5 AND (METHOD OR PROCESS) AND (MAKING OR PREPARATION OR MAN

FILE 'STNGUIDE' ENTERED AT 16:22:26 ON 10 JUN 2004

FILE 'CAPLUS, USPATFULL, JAPIO, EUROPATFULL, BIOSIS, EMBASE, MEDLINE' ENTERED AT 16:28:44 ON 10 JUN 2004

=> s 14 1-13

MISSING OPERATOR L4 1-13

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

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ANSWER 1 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                        2003:757705 CAPLUS
DOCUMENT NUMBER:
                        139:265796
                        Preparation of micronized crystalline
TITLE:
                        tiotropium bromide monohydrate and
                        formulation as inhalant to treat asthma and
                        COPD
                        Bender, Helmut; Graebner, Hagen; Schindler, Konrad;
INVENTOR(S):
                        Trunk, Michael Josef Friedrich; Walz, Michael
                        Boehringer Ingelheim Pharma Gmbh & Co. Kg, Germany
PATENT ASSIGNEE(S):
SOURCE:
                        PCT Int. Appl., 31 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                     ----
                                          -----
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                    A1 20030925 WO 2003-EP2422 20030310
     WO 2003078429
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
            PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
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            ML, MR, NE, SN, TD, TG
     DE 10212264
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     US 2004002510
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                           20040101
                                          US 2003-385175 20030310
PRIORITY APPLN. INFO.:
                                       DE 2002-10212264 A 20020320
                                       US 2002-413129P P 20020924
AB
     The invention relates to a micronized crystalline (lalpha, 2beta, 4beta,
     5alpha, 7beta)-7-[(hydroxydi-2-thienylacetyl)oxy]-9,9-dimethyl-3-oxa-9-
     azoniatricyclo[3.3.1.02,4] nonane bromide, methods for the production thereof,
     and the use thereof for producing a medicament, particularly for producing
     a medicament having an anticholinergic effect. The preparation of
     tiotropium bromide monohydrate microcrystals includes
     the solution of tiotropium bromide in water, heating,
     clarification with active carbon, filtration and slow crystallization followed
by
     micronization in an air jet mill under nitrogen atmospheric and exposing the
    micronized crystals to water vapor. Parameters of the monocline crystals
     are given. Micronized crystalline tiotropium bromide
     monohydrate is formulated to encapsulated inhalation powder and
    used to treat asthma and COPD. Thus inhalation capsules
     contained (mg): micronized tiotropium bromide 0.0225;
     lactose monohydrate (200 M) 5.2025; lactose monohydrate (5 µm) 0.2750;
     hard gelatin capsules 49.0.
REFERENCE COUNT:
                        2
                              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                        2002:889143 CAPLUS
DOCUMENT NUMBER:
                        137:358198
TITLE:
                        Stable powder inhalation dosage formulation
INVENTOR(S):
                        Etzler, Frank M.
PATENT ASSIGNEE(S):
                        Boehringer Ingelheim Pharmaceuticals, Inc., USA
SOURCE:
                        U.S., 6 pp.
```

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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KIND DATE
     PATENT NO.
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     US 6482429 B1
                            20021119
                                           US 2001-885349
                                                            20010620
                   A2
A3
     WO 2003000240
                            20030103
                                           WO 2002-US18406 20020611
                          20030306
     WO 2003000240
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                     EP 2002-732063 20020611
                     A2 20040331
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.:
                                        US 2001-885349 A 20010620
                                        WO 2002-US18406 W 20020611
```

An insufflation for the administration of a drug, e.g., ipratropium bromide, albuterol sulfate or tiotropium bromide, into a body cavity is described where the carrier for the drug is a finely divided powder selected from the group consisting of myoinositol, mannitol and cellobiose. For example, the cellobiose blend with ipratropium bromide which was inhaled from capsules into Aerobreather at 20, 40 and 60 L/min has a lower mean particle size than the lactose blend, which is the opposite of the particle sizing results from the Aerosizer. The peaks of the distributions for the cellobiose blend were shifted to lower particle sizes than the lactose blend at all inhalation rates. The difference could reflect differences in adhesion strength, particle size distribution or size selection of retained particles.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:695761 CAPLUS

DOCUMENT NUMBER: 137:237718

TITLE: Inhalant compositions containing

anticholinergics and PDE IV inhibitors

INVENTOR(S): Meade, Christopher John Montague; Pairet, Michel;

Pieper, Michael Paul

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT	NO.		KI	ND :	DATE			Α	PPLI	CATI	ON NO). 1	DATE			
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WO 2002	06994	45	A:	2	2002	0912		W	0 20	02-E	P198	в :	2002	0226		
WO 2002	06994	15	A:	3	2003	0130										
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	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,
					MA,											
	PL,	PT.	RO.	RU.	SD.	SE.	SG.	SI.	SK.	SL.	T_{iJ} .	TM.	TN.	TR.	TT.	T7.

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UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
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        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     DE 10110772
                      A1
                           20020912
                                          DE 2001-10110772 20010307
                                          EP 2002-727329 20020226
     EP 1372649
                           20040102
                      A2
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                       DE 2001-10110772 A 20010307
PRIORITY APPLN. INFO.:
                                       WO 2002-EP1988 W 20020226
                        MARPAT 137:237718
OTHER SOURCE(S):
    The invention relates to drug compns. based on anticholinergics and PDE IV
     inhibitors, to methods for their production, and to their use as inhalants for
     the treatment of respiratory tract diseases. Thus an inhalation
     powder was composed of capsules that contained (µg/
     capsule): tiotropium bromide 21.7; AWD-12-281
     200; lactose 4778.3.
    ANSWER 4 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
L4
ACCESSION NUMBER:
                        2002:487380 CAPLUS
DOCUMENT NUMBER:
                        137:68157
TITLE:
                        Inhalant compositions containing
                        anticholinergics and dopamine agonists
INVENTOR(S):
                        Pairet, Michel; Pieper, Michael Paul; Meade,
                        Christopher John Montague
                        Boehringer Ingelheim Pharma Kg, Germany
PATENT ASSIGNEE(S):
SOURCE:
                        PCT Int. Appl., 31 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
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    WO 2002049624
                    A2
                           20020627
                                          WO 2001-EP14568 20011212
    WO 2002049624
                      A3
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    DE 10063957
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    EP 1345626
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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                                          US 2001-27662
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PRIORITY APPLN. INFO.:
                                       DE 2000-10063957 A 20001220
                                       US 2000-257221P P 20001221
                                       WO 2001-EP14568 W 20011212
AB
    The invention relates to novel pharmaceutical compns. based on
     anticholinergic agents and dopamine agonists, a method for the production of
     the compns. and the use of the same for the treatment of respiratory tract
    diseases. Thus an inhalation powder contained per
    capsule (µg): tiotropium bromide 21.7;
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viozan 270; lactose 4708.3.

T.4 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 2002:465799 CAPLUS DOCUMENT NUMBER: 137:37667 TITLE: Inhalant compositions containing anticholinergics and ciclesonide corticosteroid INVENTOR(S): Pairet, Michel; Pieper, Michael Paul; Meade, Christopher John Montague PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany SOURCE: PCT Int. Appl., 26 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT: PATENT INFORMATION: KIND DATE APPLICATION NO. DATE PATENT NO. --------------WO 2002047668 20020620 WO 2001-EP14579 20011212 A2 WO 2002047668 **A**3 20020829 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG DE 10062712 A1 20020620 DE 2000-10062712 20001215 US 2002183292 A1 20021205 US 2001-86145 20011019 AU 2002031691 A5 20020624 AU 2002-31691 20011212 EP 1349549 A2 20031008 EP 2001-991827 20011212 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR JP 2004515528 T2 20040527 JP 2002-549242 20011212 PRIORITY APPLN. INFO.: DE 2000-10062712 A 20001215 DE 2000-10054042 A 20001031 US 2000-253613P P 20001128 US 2000-257220P P 20001221 WO 2001-EP14579 W 20011212 The invention relates to novel medicament compns. based on AB anticholinesterase drugs and on ST-126, to methods for their production, and to their use in treating respiratory tract diseases. Thus an inhalation powder contained per capsule (µg): tiotropium bromide x H2O 22.5; ciclesonide 250; lactose 4727.5. ANSWER 6 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 2002:465798 CAPLUS DOCUMENT NUMBER: 137:52368 TITLE: Inhalant compositions containing anticholinergics and ST-126 corticosteroid INVENTOR (S): Pairet, Michel; Pieper, Michael Paul; Meade, Christopher John Montaque PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany SOURCE: PCT Int. Appl., 26 pp. CODEN: PIXXD2 DOCUMENT TYPE:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002047667	A2	20020620	WO 2001-EP14567	20011212
WO 2002047667	Aβ	20021024		

Patent

German

LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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PRIORITY APPLN. INFO.:
                                         DE 2000-10062712 A 20001215
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                                                          P
                                                              20001221
                                         WO 2001-EP14567 W 20011212
     The invention relates to novel medicament compns. based on
AB
     anticholinesterase drugs and on ST-126 corticosteroid, to methods for
     their production, and to their use in treating respiratory tract diseases.
     Thus an inhalation powder contained per capsule
     (μg): tiotropium bromide x H2O 22.5; ST-126 250;
     lactose 4727.5.
     ANSWER 7 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
T.4
ACCESSION NUMBER:
                         2002:368320 CAPLUS
DOCUMENT NUMBER:
                         136:374855
TITLE:
                         Inhalant compositions containing
                         tiotropium salts and salmeterol salts
INVENTOR (S):
                         Schmelzer, Christel; Nagel, Juergen
PATENT ASSIGNEE(S):
                         Boehringer Ingelheim Pharma K.-G., Germany
SOURCE:
                         PCT Int. Appl., 36 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                     KIND DATE
                                            APPLICATION NO. DATE
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     WO 2002038154
                      A1
                             20020516
                                            WO 2001-EP12962 20011109
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
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     EP 1335728
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PRIORITY APPLN. INFO.:
                                         DE 2000-10056104 A 20001113
                                         US 2000-251603P P 20001206
                                         WO 2001-EP12962 W 20011109
```

The invention relates to novel drug compns. based on tiotropium

AB

salts and on salmeterol salts, a method for their production and their use for treating respiratory conditions. Thus an inhalation **powder**

contained per capsule (µg): tiotropium

bromide 10.8; salmeterol x 1/2 H2SO4 27.9; Lactose 4961.3.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:353268 CAPLUS

DOCUMENT NUMBER: 136:374832

TITLE: Inhalant compositions containing anticholinergics and corticosteroids

INVENTOR(S): Pairet, Michel; Pieper, Michael Paul; Meade,

Christopher John Montague; Reichl, Richard; Schmelzer,

Christel

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

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KIND DATE
    PATENT NO.
                                         APPLICATION NO. DATE
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    WO 2002036106
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    WO 2002036106
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            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
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    JP 2004512359
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PRIORITY APPLN. INFO.:
                                       DE 2000-10054042 A 20001031
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                                       US 2000-257220P P 20001221
                                       DE 2001-10138272 A 20010810
                                       US 2001-314599P P 20010824
                                       WO 2001-EP12511 W 20011023
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                                                       B1 20011025
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AB The invention relates to novel drug compns. based on anticholinergics and corticosteroids, a method for their production and their use for treating respiratory conditions. Thus an inhalation powder contained per capsule (μg): tiotropium bromide 21.7; budesonide 200; Lactose 4778.3.

L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:689613 CAPLUS

DOCUMENT NUMBER: 136:390861

TITLE: Effective delivery of particles with the HandiHaler dry powder inhalation system over

a range of chronic obstructive pulmonary disease

severity
Chodosh, Sanford; Flanders, Judith S.; Kesten, Steven; AUTHOR (S):

Serby, Charles W.; Hochrainer, Dieter; Witek, Theodore

J., Jr.

CORPORATE SOURCE: Veterans Administration Outpatient Clinic, Pulmonary

Research, Boston, MA, USA

Journal of Aerosol Medicine (2001), 14(3), 309-315 SOURCE:

CODEN: JAEMEP; ISSN: 0894-2684

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

The HandiHaler is a dry powder breath activated inhaler system developed for inhalation therapy for patients with airway disease. Its operation is based on the evacuation of powder from a pierced capsule. We sought to document the inspiratory flow rates attained by patients inspiring through the HandiHaler with various degrees of airflow limitation. Subjects with stable chronic obstructive pulmonary disease (COPD) were the study's population. An in vitro study of fine particle dose was conducted using an Andersen Cascade Impactor to assess medication delivery at low inspiratory flow rates. Subsequently, an in vivo study was conducted to determine inspiratory flow rates in patients with COPD as measured through a pneumotach with a custom coupler device with and without the HandiHaler. Patients were classified into three approx. equal groups of spirometric severity ranging from mild (46-65% predicted normal forced expiratory volume in 1 s [FEV1]), to moderate (28-45%) to severe (\leq 27%). The in vitro study indicated delivery of medication at flow rates as low as 20 L/min. Twenty-six men completed the in vivo study (age $66.9\pm10.9 \text{ yr}$, FEV1 = $1.02\pm0.451.$). The median peak inspiratory flow rates attained in the mild (n = 8), moderate (n = 10), and severe (n = 8) categories were 45, 45.6, and 35.4 L/min resp. The min. peak inspiratory flow rates in the three groups were 28.2, 21.6 and 20.4 L/min. The HandiHaler device effectively delivers particles to the lung over a wide range of airflow limitation in

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 10 OF 13 USPATFULL on STN

patients with COPD.

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States

PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER KIND DATE ______ US 6235725 B1 20010522 US 1999-362540 19990728 PATENT INFORMATION: APPLICATION INFO.: 19990728 (9)

> NUMBER DATE -----

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility FILE SEGMENT:

Granted

PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM:

2 Drawing Figure(s); 2 Drawing Page(s)

NUMBER OF DRAWINGS: 985 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and AB methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2001:67205 USPATFULL

TITLE: Supercritical fluid extraction of mould lubricant from

hard shell capsules

INVENTOR(S): Horhota, Stephen T., Brookfield, CT, United States

Saim, Said, New Milford, CT, United States

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield,

CT, United States (U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: US 1997-62099P 19971014 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Page, Thurman K. ASSISTANT EXAMINER: Seidleck, Brian K.

LEGAL REPRESENTATIVE: Raymond, Robert P., Stempel, Alan R., Devlin,

Mary-Ellen M.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 24 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 1487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Hard shelled capsules and dry, powdered

pharmaceutical formulations are treated with supercritical fluids to

remove impurities such as mold lubricants and moisture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 13 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 1417975 EUROPATFULL EW 200420 FS OS

TITLE: REMEDIES FOR DISEASES WITH BONE MASS LOSS HAVING EP4

AGONIST AS THE ACTIVE INGREDIENT.

MITTEL ZUR BEHANDLUNG VON ERKRANKUNGEN, DIE MIT KNOCHENSCHWUND EINHERGEHEN, MIT EP4 AGONIST ALS

WIRKSTOFF.

MEDICAMENTS CONTENANT UN AGONISTE DE EP4 EN TANT QUE PRINCIPE ACTIF DESTINES AUX MALADIES ASSOCIEES A UNE

PERTE DE LA MASSE OSSEUSE.

INVENTOR(S): MARUYAMA, Toru, c/o Minase Res. Inst., Ono Pharm., Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-qun,

Osaka 618-8585, JP;

KOBAYASHI, Kaoru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KAMBE, Tohru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

MARUYAMA, Takayuki, c/o Minase Res. Inst., Ono Pha, Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Miishima-gun,

Osaka 618-8585, JP;

YOSHIDA, Hideyuki, c/o Minase Res Inst, Ono Pharm., Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

NISHIURA, Akio, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

ABE, Nobutaka, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP

PATENT ASSIGNEE(S): ONO PHARMACEUTICAL CO., LTD., 1-5, Doshomachi 2-chome,

Chuo-ku, Osaka-shi, Osaka 541-8526, JP

PATENT ASSIGNEE NO: 435424

AGENT: Henkel, Feiler & Haenzel, Moehlstrasse 37, 81675

Muenchen, DE

AGENT NUMBER: 100401

OTHER SOURCE: MEPA2004039 EP 1417975 A1 0322

SOURCE: Wila-EPZ-2004-H20-T1b

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Japanisch; Veroeffentlichung in Englisch;

Verfahren in Englisch

DESIGNATED STATES: R AT; R BE; R BG; R CH; R CY; R CZ; R DE; R DK; R EE; R

ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R SK; R TR; R AL; R LT; R LV; R

MK; R RO; R SI

PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale

Anmeldung)

PATENT INFORMATION:

	PATENT NO		KIND	DATE
	ΕP	1417975	A1	20040512
'OFFENLEGUNGS' DATE:				20040512
APPLICATION INFO.:	ΕP	2002-747707		20020722
PRIORITY APPLN. INFO.:	JP	2001-2001222148		20010723
	JP	2001-2001239895		20010807
	JP	2002-2002056449		20020301
RELATED DOC. INFO.:	WO	02-JP7385	02072	22 INTAKZ
	WO	2003009872	03020	06 INTPNR

L4 ANSWER 13 OF 13 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 1391200 EUROPATFULL EW 200409 FS OS

TITLE: DRUG PREPARATIONS.

ARZNEIMITTEL.

PREPARATIONS DE MEDICAMENTS.

INVENTOR(S): ONUKI, Yoichi, 2-31-7, Nakadai, Narita-shi, Chiba

286-0015, JP;

OKADA, Minoru, 4-7-20, Kioroshihigashi, Inzai-shi, Chiba

270-1323, JP;

SAKAI, Hirotaka, 1-20-6, Yotsukaido, Yotsukaido-shi,

Chiba 284-0005, JP;

KANBE, Hideyoshi, 2-21-8, Mama, Ichikawa-shi, Chiba

272-0826, JP;

MIZUNO, Hiroyuki, 1-24-19, Hiyoshidai, Tomisato-machi,

Inba-gun, Chiba 286-0201, JP;

IMAMORI, Katsumi, 2521-86, Shimoshizushinden,

Yotsukaido-shi, Chiba 284-0006, JP

PATENT ASSIGNEE(S): SSP Co., Ltd., 12-4, Nihonbashi-hamacho 2-chome,

Chuo-ku, Tokyo 103-8481, JP

PATENT ASSIGNEE NO: 2557581

AGENT: Hartz, Nikolai, Waechtershaeuser & Hartz,

Patentanwaelte, Weinstrasse 8, 80333 Muenchen, DE

AGENT NUMBER: 85663

MEPA2004017 EP 1391200 A1 0014 OTHER SOURCE:

Wila-EPZ-2004-H09-T1b SOURCE:

DOCUMENT TYPE: Patent

Anmeldung in Japanisch; Veroeffentlichung in Englisch; LANGUAGE:

Verfahren in Englisch

R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R DESIGNATED STATES:

GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R

SE; R TR; R AL; R LT; R LV; R MK; R RO; R SI

EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale PATENT INFO.PUB.TYPE:

Anmeldung)

PATENT INFORMATION:

PATENT NO KIND DATE ______ EP 1391200 A1 20040225 'OFFENLEGUNGS' DATE: 20040225 APPLICATION INFO.: EP 2002-726486 20020524 PRIORITY APPLN. INFO.: JP 2001-2001156853 20010525 RELATED DOC. INFO.: WO 200JP2005041 020524 INTAKZ 021205 INTPNR WO 2002096405

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(FILE 'HOME' ENTERED AT 16:10:09 ON 10 JUN 2004)

FILE 'CAPLUS, USPATFULL, EUROPATFULL, JAPIO, MEDLINE, BIOSIS, EMBASE'

ENTERED AT 16:10:45 ON 10 JUN 2004

L160 S INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPI L2

29 S L1 AND (PARTICLE# OR PARTICULATE#)

L319 S L2 AND POWDER?

L413 S L3 AND CAPSULE?

L5 5 S L4 AND (COPD OR ASTHMA)

1.6 2 S L5 AND (METHOD OR PROCESS) AND (MAKING OR PREPARATION OR MAN

FILE 'STNGUIDE' ENTERED AT 16:22:26 ON 10 JUN 2004

FILE 'CAPLUS, USPATFULL, JAPIO, EUROPATFULL, BIOSIS, EMBASE, MEDLINE' ENTERED AT 16:28:44 ON 10 JUN 2004

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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 10 Jun 2004 (20040610/PD) FILE LAST UPDATED: 10 Jun 2004 (20040610/ED)

HIGHEST GRANTED PATENT NUMBER: US6748598

HIGHEST APPLICATION PUBLICATION NUMBER: US2004111778

CA INDEXING IS CURRENT THROUGH 10 Jun 2004 (20040610/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 10 Jun 2004 (20040610/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2004

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2004

- >>> USPAT2 is now available. USPATFULL contains full text of the <<<
- >>> original, i.e., the earliest published granted patents or <<<
- >>> applications. USPAT2 contains full text of the latest US <<<
- publications, starting in 2001, for the inventions covered in <<<

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>>> USPATFULL. A USPATFULL record contains not only the original
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>>> published document but also a list of any subsequent
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>>> publications. The publication number, patent kind code, and
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>>> publication date for all the US publications for an invention
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>>> classifications, or claims, that may potentially change from
                                                                     <<<
>>> the earliest to the latest publication.
                                                                     <<<
This file contains CAS Registry Numbers for easy and accurate
substance identification.
=> s inhalant and (tiotropium or (tiotropium bromide) or (tiotropium bromide
monhydrate))
         1928 INHALANT
          236 TIOTROPIUM
          236 TIOTROPIUM
       145139 BROMIDE
          133 TIOTROPIUM BROMIDE
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          236 TIOTROPIUM
       145139 BROMIDE
          156 MONHYDRATE
            0 TIOTROPIUM BROMIDE MONHYDRATE
                 (TIOTROPIUM (W) BROMIDE (W) MONHYDRATE)
           13 INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPIUM
L7
              BROMIDE MONHYDRATE))
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       552872 PARTICLE#
       156148 PARTICULATE#
L8
            9 L7 AND (PARTICLE# OR PARTICULATE#)
=> s 12 and powder?
       437594 POWDER?
            3 L2 AND POWDER?
1.9
=> d 19 1-3 ibib abs
L9
    ANSWER 1 OF 3 USPATFULL on STN
ACCESSION NUMBER:
                       2004:132947 USPATFULL
TITLE:
                       Medical aerosol formulations
INVENTOR(S):
                       Muller-Walz, Rudi, Schopfheim, GERMANY, FEDERAL
                       REPUBLIC OF
                       Niederlander, Carsten, Riehen, SWITZERLAND
                            NUMBER
                                        KIND
                                                DATE
                       -----
PATENT INFORMATION:
                       US 2004101483
                                       A1 20040527
APPLICATION INFO.:
                       US 2003-473874
                                        A1
                                              20030930
                                                        (10)
                       WO 2002-CH145
                                              20020311
                             NUMBER DATE
                       -----
PRIORITY INFORMATION:
                       CH 2001-60101 20010330
                       CH 2001-152701
                                        20010820
DOCUMENT TYPE:
                       Utility
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APPLICATION

FILE SEGMENT:

EDWARDS & ANGELL, LLP, P.O. BOX 55874, BOSTON, MA, LEGAL REPRESENTATIVE:

02205

NUMBER OF CLAIMS: 53 EXEMPLARY CLAIM: 1 LINE COUNT: 986

Calcium salts, magnesium salts and zinc salts of palmitic acid and of AB stearic acid are suited for use as solid auxiliary agents for medical suspension aerosol formulations based on hydrofluoroalkanes. They improve, in particular, the suspension stability, the mechanical function of the dosing valve, the dosing precision, and the chemical

stability of the active substance.

L9 ANSWER 2 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S):

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States
PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER KIND DATE -----PATENT INFORMATION: US 6235725 B1 20010522 APPLICATION INFO.: US 1999-362540 19990728 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2001:67205 USPATFULL

TITLE: Supercritical fluid extraction of mould lubricant from

hard shell capsules

Horhota, Stephen T., Brookfield, CT, United States INVENTOR(S):

Saim, Said, New Milford, CT, United States

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield,

CT, United States (U.S. corporation)

NUMBER KIND DATE -----PATENT INFORMATION: US 6228394 B1 20010508 APPLICATION INFO.: US 1998-157267 19980921 19980921 (9)

> NUMBER DATE ______

PRIORITY INFORMATION: US 1997-62099P 19971014 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Seidleck, Brian K.

LEGAL REPRESENTATIVE: Raymond, Robert P., Stempel, Alan R., Devlin,

Mary-Ellen M.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 24 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 1487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Hard shelled capsules and dry, powdered pharmaceutical

formulations are treated with supercritical fluids to remove impurities

such as mold lubricants and moisture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 18 1-9 ibib abs

L8 ANSWER 1 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2004:132947 USPATFULL

TITLE: Medical aerosol formulations

INVENTOR(S): Muller-Walz, Rudi, Schopfheim, GERMANY, FEDERAL

REPUBLIC OF

Niederlander, Carsten, Riehen, SWITZERLAND

PRIORITY INFORMATION: CH 2001-60101 20010330 CH 2001-152701 20010820

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EDWARDS & ANGELL, LLP, P.O. BOX 55874, BOSTON, MA,

02205

NUMBER OF CLAIMS: 53
EXEMPLARY CLAIM: 1
LINE COUNT: 986

AB Calcium salts, magnesium salts and zinc salts of palmitic acid and of stearic acid are suited for use as solid auxiliary agents for medical suspension aerosol formulations based on hydrofluoroalkanes. They improve, in particular, the suspension stability, the mechanical function of the dosing valve, the dosing precision, and the chemical

stability of the active substance.

L8 ANSWER 2 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:283185 USPATFULL

TITLE: Nitrosated and nitrosylated compounds and compositions

and their use for treating respiratory disorders

INVENTOR(S): Garvey, David S., Dover, MA, UNITED STATES

Letts, L. Gordon, Dover, MA, UNITED STATES
Renfroe, H. Burt, Wellesley, MA, UNITED STATES
Richardson, Stewart K., Ashford, CT, UNITED STATES

RELATED APPLN. INFO.: Division of Ser. No. US 2000-689851, filed on 13 Oct

2000, GRANTED, Pat. No. US 6579863 Division of Ser. No. US 1998-157242, filed on 18 Sep 1998, GRANTED, Pat. No. US 6197762 Division of Ser. No. US 1996-620882, filed on 22 Mar 1996, GRANTED, Pat. No. US 5824669 Division of Ser. No. WO 1997-US4319, filed on 19 Mar 1997,

PENDING

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EDWARD D GRIEFF, HALE & DORR LLP, 1455 PENNSYLVANIA

AVE, NW, WASHINGTON, DC, 20004

NUMBER OF CLAIMS: 58 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 29 Drawing Page(s)

LINE COUNT: 2520

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β-agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β-agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.cndot.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:176162 USPATFULL

TITLE: Medicinal aerosol formulations

and/or treating respiratory disorders.

INVENTOR(S): Keller, Manfred, Bad Krozingen, GERMANY, FEDERAL

REPUBLIC OF

Herzog, Kurt, Basel, SWITZERLAND

Muller-Walz, Rudi, Schopfheim, GERMANY, FEDERAL

REPUBLIC OF

Kraus, Holger, Rickenbach, SWITZERLAND

PATENT ASSIGNEE(S): Jago Research AG, Muttenz, SWITZERLAND (non-U.S.

corporation)

NUMBER DATE

PRIORITY INFORMATION: CH 1998-1565 19980724

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Hartley, Michael G. ASSISTANT EXAMINER: Haghighatian, M. LEGAL REPRESENTATIVE: Selitto, Behr & Kim

NUMBER OF CLAIMS: 51 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 995

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A pressure-liquefied propellant mixture for aerosols, comprising

dinitrogen monoxide and a hydrofluoroalkane having 1 to 3 carbon atoms, in particular 1,1,1,2-tetrafluoroethane and/or 1,1,1,2,3,3,3-heptafluoropropane, makes possible an improvement in the wetting properties of pharmaceutically active compounds, whereby the formulation problems existing with hydrofluoroalkanes can be overcome with respect to suspension and solution aerosols and thus improved medicinal aerosol formulations can be obtained. With the aid of dinitrogen monoxide, it is also possible to influence the pressure and thus the **particle** size distribution specifically and, by displacement of oxygen from the hydrofluoroalkanes, to improve the storage stability of oxidation-sensitive active compounds. If desired, the propellant mixture can additionally contain carbon dioxide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:161952 USPATFULL

TITLE: Nitrosated and nitrosylated compounds and compositions

and their use for treating respiratory disorders

INVENTOR(S): Garvey, David S., Waltham, MA, United States

Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States

PATENT ASSIGNEE(S): Nitromed, Inc., Bedford, MA, United States (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6579863 B1 20030617 APPLICATION INFO.: US 2000-689851 20001013 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-157242, filed on 18 Sep

1998, now patented, Pat. No. US 6197762 Division of Ser. No. US 1996-620882, filed on 22 Mar 1996, now patented, Pat. No. US 5824669 Continuation of Ser. No.

WO 1997-US4319, filed on 19 Mar 1997

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Badio, Barbara P. LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 28 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 2028

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β-agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β-agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.cndot.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States

PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

KIND DATE NUMBER -----US 6235725 B1 20010522 US 1999-362540 19990728 PATENT INFORMATION: 19990728 (9) APPLICATION INFO.:

> NUMBER DATE -----

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted
PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to $\beta.sub.2$ -adrenergic agonists. The methods and compositions

according to the invention are also useful as analytical tools for

functional studies and as combination therapeutic tools.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 6 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2001:67205 USPATFULL

Supercritical fluid extraction of mould lubricant from TITLE:

hard shell capsules

INVENTOR(S): Horhota, Stephen T., Brookfield, CT, United States

Saim, Said, New Milford, CT, United States

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield,

CT, United States (U.S. corporation)

NUMBER KIND DATE -----US 6228394 B1 20010508 US 1998-157267 19980921 PATENT INFORMATION: APPLICATION INFO.: 19980921 (9)

> NUMBER DATE -----

PRIORITY INFORMATION: US 1997-62099P 19971014 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Page, Thurman K. ASSISTANT EXAMINER: Seidleck, Brian K.

LEGAL REPRESENTATIVE: Raymond, Robert P., Stempel, Alan R., Devlin,

Mary-Ellen M.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 24 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 1487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Hard shelled capsules and dry, powdered pharmaceutical formulations are treated with supercritical fluids to remove impurities such as mold

lubricants and moisture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 9 USPATFULL on STN ACCESSION NUMBER:

2001:42141 USPATFULL

TITLE:

Nitrosated and nitrosylated compounds, and compositions

and their use for treating respiratory disorders

INVENTOR(S):

Garvey, David S., Dover, MA, United States Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States

PATENT ASSIGNEE(S):

NitroMed, Inc., Bedford, MA, United States (U.S.

corporation)

NUMBER KIND DATE __________ US 37116 E1 20010327 US 5824669 19981020 PATENT INFORMATION:

APPLICATION INFO.:

US 5824669 19981020 (Original) US 1998-219476 19981223 (9) US 1996-620882 19960322 (Original)

DOCUMENT TYPE: FILE SEGMENT:

Reissue Granted

FILE SEGMENT: Granted
PRIMARY EXAMINER: Rotman, Alan L. LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 39 EXEMPLARY CLAIM:

LINE COUNT:

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

1916

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β -agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β -agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.circle-solid.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 8 OF 9 USPATFULL on STN L8

ACCESSION NUMBER:

INVENTOR(S):

2001:33259 USPATFULL

TITLE:

Nitrosated and nitrosylated steroids compositions, and

methods for treating respiratory disorders Garvey, David S., Waltham, MA, United States

Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States NitroMed, Inc., Bedford, MA, United States (U.S.

PATENT ASSIGNEE(S):

corporation)

NUMBER KIND DATE -----

PATENT INFORMATION: APPLICATION INFO.:

US 6197762 B1 20010306 US 1998-157242 19980918 (9)

RELATED APPLN. INFO.:

Division of Ser. No. US 1996-620882, filed on 22 Mar 1996, now patented, Pat. No. US 5824669 Continuation of

Ser. No. WO 1997-US4319, filed on 19 Mar 1997

DOCUMENT TYPE: FILE SEGMENT:

Utility Granted

PRIMARY EXAMINER: PRIMARY EXAMINER: ASSISTANT EXAMINER:

Rotman, Alan L. Desai, Rita

LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS:

16

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 1841

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β -agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β -agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.cndot.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 9 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1998:128257 USPATFULL

TITLE: Nitrosated and nitrosylated compounds and compositions

and their use for treating respiratory disorders

INVENTOR(S):

Garvey, David S., Dover, MA, United States Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States

PATENT ASSIGNEE(S): NitroMed, Inc., Bedford, MA, United States (U.S.

corporation)

NUMBER KIND DATE

US 5824669 19981020 US 1996-620882 19960322 (8) PATENT INFORMATION: APPLICATION INFO.:

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Rotman, Alan L. LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 19 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 1812

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β -agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β -agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.circle-solid.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

WEST Search History

DATE: Tuesday, February 04, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB = US	PT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L9	L8 and mix\$ and coars\$ and fin\$	4	L9
L8	L7 and (COPD or asthma or respiratory)	22	L8
L7	L6 and (um or micrometer or micron?)	22	L7
L6	L5 and (mean particle size)	52	L6
L5	L4 and (glucose or arabinose or lactose or saccharose or maltose or dextrane or sorbitol or mannitol or xylitol or (sodium chloride) or (calcium carbonate))	52	L5
L4	L3 and (average particle size)	62	L4
L3	L2 and (chloride or bromide or iodide or metjhnaesulphonate or paratoluenesulphonate or (methyl sulphate))	71	L3
L2	L1 and Tiotropium	78	L2
L1	inhal\$ and (powder\$ or partic\$ or pellet\$)	33911	L1

END OF SEARCH HISTORY

	Ι	Image Doc. Displayed					
1	US	20020122826					
2	US	20020111495					

	Retrieval Classif	Inventor	s	С	P	2	3	4	5
1		Lizio, Rosario et al.							
2		Magee, Thomas Victor et al.				Ш	ш		

	บ	1	Document ID	Issue Date	Pages
1	×		US 20020122826 A1	20020905	11
2	×		US 20020111495 A1	20020815	155

	Title	Current OR	Current XRef
1	Solid peptide preparations for inhalation and their preparation	424/489	241/18
2	Nicotinamide acids, amides, and their mimetics active as inhibitors of PDE4 isozymes	546/291	546/298; 546/315

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        JAN 27
                 Source of Registration (SR) information in REGISTRY updated
                 and searchable
NEWS
         JAN 27
                 A new search aid, the Company Name Thesaurus, available in
                 CA/CAplus
NEWS
     5
         FEB 05
                 German (DE) application and patent publication number format
                 changes
NEWS
        MAR 03
                 MEDLINE and LMEDLINE reloaded
     6
NEWS
     7
         MAR 03
                MEDLINE file segment of TOXCENTER reloaded
NEWS 8 MAR 03 FRANCEPAT now available on STN
NEWS 9 MAR 29 Pharmaceutical Substances (PS) now available on STN
NEWS 10 MAR 29 WPIFV now available on STN
NEWS 11 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 12 APR 26 PROMT: New display field available
NEWS 13 APR 26
                 IFIPAT/IFIUDB/IFICDB: New super search and display field
                 available
NEWS 14
        APR 26
                LITALERT now available on STN
NEWS 15
        APR 27
                NLDB: New search and display fields available
NEWS 16
         May 10
                 PROUSDDR now available on STN
NEWS 17
         May 19
                PROUSDDR: One FREE connect hour, per account, in both May
                 and June 2004
NEWS 18
         May 12
                 EXTEND option available in structure searching
NEWS 19
         May 12
                 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 20
         May 17
                 FRFULL now available on STN
NEWS 21
                 STN User Update to be held June 7 and June 8 at the SLA 2004
         May 27
                 Conference
NEWS 22
         May 27
                 New UPM (Update Code Maximum) field for more efficient patent
                 SDIs in CAplus
NEWS 23
         May 27
                 CAplus super roles and document types searchable in REGISTRY
NEWS 24
         May 27
                 Explore APOLLIT with free connect time in June 2004
NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
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              Welcome Banner and News Items
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              Direct Dial and Telecommunication Network Access to STN
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              CAS World Wide Web Site (general information)
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=> file caplus uspatful europatful japio medline biosis embase
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SINCE FILE TOTAL
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0.21

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FILE 'EMBASE' ENTERED AT 16:10:45 ON 10 JUN 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

=> s inhalant and (tiotropium or (tiotropium bromide) or (tiotropium bromide monhydrate))

L1 60 INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPIUM BROMIDE MONHYDRATE))

=> s l2 and powder?
L3 19 L2 AND POWDER?

=> s 13 and capsule?

L4 13 L3 AND CAPSULE?

=> s 14 and (COPD or asthma)

L5 5 L4 AND (COPD OR ASTHMA)

=> s 15 and (method or process) and (making or preparation or manufacture)
6 FILES SEARCHED...

L6 2 L5 AND (METHOD OR PROCESS) AND (MAKING OR PREPARATION OR MANUFA CTURE)

=> d 16 1-2 IBIB ABA

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NO VALID FORMATS ENTERED FOR FILE 'EUROPATFULL'
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L6 ANSWER 1 OF 2 USPATFULL on STN

The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

ANSWER 2 OF 2 EUROPATFULL COPYRIGHT 2004 WILA on STN

A pharmaceutical composition for topical administration for prevention and/or treatment of diseases associated with decrease in bone mass comprising an EP.sub4. agonist as an active ingredient. An EP.sub4. agonist, in which includes a compound possessing prostaglandin skeleton as a representative, possesses promoting action on bone formation, so it is useful for prevention and/or treatment of diseases associated with decrease in bone mass (bone diseases such as primary osteoporosis, secondary osteoporosis, bone metastasis of cancer, hypercalcemia, Paget's disease, bone loss and bone necrosis, postoperative osteogenesis, alternative therapy for bone grafting).

=> s
ENTER LOGIC EXPRESSION, QUERY NAME, OR (END):L6 ibib ab
MISSING OPERATOR L6 IBIB
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> d 16 1-2 IBIB AB

L6 ANSWER 1 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States

PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and AB methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

L6 ANSWER 2 OF 2 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 1417975 EUROPATFULL EW 200420 FS OS

TITLE: REMEDIES FOR DISEASES WITH BONE MASS LOSS HAVING EP4

AGONIST AS THE ACTIVE INGREDIENT.

MITTEL ZUR BEHANDLUNG VON ERKRANKUNGEN, DIE MIT KNOCHENSCHWUND EINHERGEHEN, MIT EP4 AGONIST ALS

WIRKSTOFF.

MEDICAMENTS CONTENANT UN AGONISTE DE EP4 EN TANT QUE PRINCIPE ACTIF DESTINES AUX MALADIES ASSOCIEES A UNE

PERTE DE LA MASSE OSSEUSE.

MARUYAMA, Toru, c/o Minase Res. Inst., Ono Pharm., Co., INVENTOR(S):

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KOBAYASHI, Kaoru, c/o Minase Res. Inst., Ono Pharm, Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KAMBE, Tohru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

MARUYAMA, Takayuki, c/o Minase Res. Inst., Ono Pha, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Miishima-gun,

Osaka 618-8585, JP;

YOSHIDA, Hideyuki, c/o Minase Res Inst, Ono Pharm., Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

NISHIURA, Akio, c/o Minase Res Inst., Ono Pharm, Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

ABE, Nobutaka, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP

ONO PHARMACEUTICAL CO., LTD., 1-5, Doshomachi 2-chome, PATENT ASSIGNEE(S):

Chuo-ku, Osaka-shi, Osaka 541-8526, JP

PATENT ASSIGNEE NO: 435424

AGENT: Henkel, Feiler & Haenzel, Moehlstrasse 37, 81675

Muenchen, DE

AGENT NUMBER: 100401

OTHER SOURCE: MEPA2004039 EP 1417975 A1 0322

Wila-EPZ-2004-H20-T1b SOURCE:

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Japanisch; Veroeffentlichung in Englisch;

Verfahren in Englisch

DESIGNATED STATES: R AT; R BE; R BG; R CH; R CY; R CZ; R DE; R DK; R EE; R

> ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R SK; R TR; R AL; R LT; R LV; R

MK; R RO; R SI

PATENT INFO. PUB. TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale

Anmeldung)

PATENT INFORMATION:

PATENT NO KIND DATE ------

EP 1417975 A1 20040512

'OFFENLEGUNGS' DATE: 20040512 APPLICATION INFO.: EP 2002-747707 20020722

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20010723
PRIORITY APPLN. INFO.: JP 2001-2001222148
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                      JP 2002-2002056449
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RELATED DOC. INFO.:
                      WO 02-JP7385
                                         030206 INTPNR
                      WO 2003009872
      A pharmaceutical composition for topical administration for prevention
ABEN
      and/or treatment of diseases associated with decrease in bone mass
      comprising an EP.sub4. agonist as an active ingredient. An EP.sub4.
       agonist, in which includes a compound possessing prostaglandin skeleton
      as a representative, possesses promoting action on bone formation, so it
       is useful for prevention and/or treatment of diseases associated with
      decrease in bone mass (bone diseases such as primary osteoporosis,
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     2003:757705 CAPLUS
DN
     139:265796
    Preparation of micronized crystalline tiotropium bromide
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    monohydrate and formulation as inhalant to treat asthma
     and COPD
     Bender, Helmut; Graebner, Hagen; Schindler, Konrad; Trunk, Michael Josef
IN
     Friedrich; Walz, Michael
     Boehringer Ingelheim Pharma Gmbh & Co. Kg, Germany
PA
SO
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AN
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     136:374855
     Inhalant compositions containing tiotropium salts and
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     Schmelzer, Christel; Nagel, Juergen
IN
     Boehringer Ingelheim Pharma K.-G., Germany
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     2001:689613 CAPLUS
AN
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     136:390861
TI
     Effective delivery of particles with the HandiHaler dry
     powder inhalation system over a range of chronic obstructive
     pulmonary disease severity
ΑU
     Chodosh, Sanford; Flanders, Judith S.; Kesten, Steven; Serby, Charles W.;
     Hochrainer, Dieter; Witek, Theodore J., Jr.
CS
     Veterans Administration Outpatient Clinic, Pulmonary Research, Boston, MA,
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     Journal of Aerosol Medicine (2001), 14(3), 309-315
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RE.CNT 19
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L5
     ANSWER 4 OF 5 USPATFULL on STN
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AN
ΤI
       Methods and compositions for the prevention of tolerance to medications
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Ahmed, Tahir, Coral Gables, FL, United States

IN

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PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET
       1417975 EUROPATFULL ED 20040513 EW 200420 FS OS
AN
       REMEDIES FOR DISEASES WITH BONE MASS LOSS HAVING EP4 AGONIST AS THE
TIEN
       ACTIVE INGREDIENT.
TIDE
       MITTEL ZUR BEHANDLUNG VON ERKRANKUNGEN, DIE MIT KNOCHENSCHWUND
       EINHERGEHEN, MIT EP4 AGONIST ALS WIRKSTOFF.
TIFR
       MEDICAMENTS CONTENANT UN AGONISTE DE EP4 EN TANT QUE PRINCIPE ACTIF
       DESTINES AUX MALADIES ASSOCIEES A UNE PERTE DE LA MASSE OSSEUSE.
IN
       MARUYAMA, Toru, c/o Minase Res. Inst., Ono Pharm., Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       KOBAYASHI, Kaoru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
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       3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       MARUYAMA, Takayuki, c/o Minase Res. Inst., Ono Pha, Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Miishima-gun, Osaka 618-8585, JP;
       YOSHIDA, Hideyuki, c/o Minase Res Inst, Ono Pharm., Co., Ltd., 1-1,
       Sakurai 3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       NISHIURA, Akio, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai
       3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP;
       ABE, Nobutaka, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai
       3-chome, Shimamoto-cho, Mishima-gun, Osaka 618-8585, JP
PA
       ONO PHARMACEUTICAL CO., LTD., 1-5, Doshomachi 2-chome, Chuo-ku,
       Osaka-shi, Osaka 541-8526, JP
SO
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SINCE FILE TOTAL ENTRY SESSION 0.66 66.08

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FILE 'CAPLUS, USPATFULL, EUROPATFULL, JAPIO, MEDLINE, BIOSIS, EMBASE' ENTERED AT 16:10:45 ON 10 JUN 2004

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19 S L2 AND POWDER? L3

L413 S L3 AND CAPSULE?

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FILE 'STNGUIDE' ENTERED AT 16:22:26 ON 10 JUN 2004

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=> s 14 1-13

MISSING OPERATOR L4 1-13

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

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ANSWER 1 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
L4
                        2003:757705 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        139:265796
TITLE:
                        Preparation of micronized crystalline
                        tiotropium bromide monohydrate and
                        formulation as inhalant to treat asthma and
                        COPD
                        Bender, Helmut; Graebner, Hagen; Schindler, Konrad;
INVENTOR(S):
                        Trunk, Michael Josef Friedrich; Walz, Michael
                        Boehringer Ingelheim Pharma Gmbh & Co. Kg, Germany
PATENT ASSIGNEE(S):
SOURCE:
                        PCT Int. Appl., 31 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                     KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
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                                     WO 2003-EP2422 20030310
                    A1 20030925
     WO 2003078429
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
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             ML, MR, NE, SN, TD, TG
     DE 10212264
                      A1
                           20031002
                                          DE 2002-10212264 20020320
                                          US 2003-385175 20030310
     US 2004002510
                      A1
                           20040101
PRIORITY APPLN. INFO.:
                                       DE 2002-10212264 A 20020320
                                       US 2002-413129P P 20020924
     The invention relates to a micronized crystalline (lalpha, 2beta, 4beta,
AB
     5alpha, 7beta)-7-[(hydroxydi-2-thienylacetyl)oxy]-9,9-dimethyl-3-oxa-9-
     azoniatricyclo[3.3.1.02,4] nonane bromide, methods for the production thereof,
     and the use thereof for producing a medicament, particularly for producing
     a medicament having an anticholinergic effect. The preparation of
     tiotropium bromide monohydrate microcrystals includes
     the solution of tiotropium bromide in water, heating,
     clarification with active carbon, filtration and slow crystallization followed
by
     micronization in an air jet mill under nitrogen atmospheric and exposing the
     micronized crystals to water vapor. Parameters of the monocline crystals
     are given. Micronized crystalline tiotropium bromide
     monohydrate is formulated to encapsulated inhalation powder and
     used to treat asthma and COPD. Thus inhalation capsules
     contained (mg): micronized tiotropium bromide 0.0225;
     lactose monohydrate (200 M) 5.2025; lactose monohydrate (5 μm) 0.2750;
     hard gelatin capsules 49.0.
REFERENCE COUNT:
                        2
                              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                        2002:889143 CAPLUS
DOCUMENT NUMBER:
                        137:358198
TITLE:
                        Stable powder inhalation dosage formulation
INVENTOR(S):
                        Etzler, Frank M.
PATENT ASSIGNEE(S):
                        Boehringer Ingelheim Pharmaceuticals, Inc., USA
SOURCE:
                        U.S., 6 pp.
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CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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KIND DATE
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                                      US 2001-885349
    US 6482429 B1 20021119
                                                        20010620
    WO 2003000240 A2 20030103
WO 2003000240 A3 20030306
                                       WO 2002-US18406 20020611
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            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
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            UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
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            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                    A2 20040331 EP 2002-732063 20020611
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.:
                                     US 2001-885349
                                                     A 20010620
                                     WO 2002-US18406 W 20020611
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AB An insufflation for the administration of a drug, e.g., ipratropium bromide, albuterol sulfate or tiotropium bromide, into a body cavity is described where the carrier for the drug is a finely divided powder selected from the group consisting of myoinositol, mannitol and cellobiose. For example, the cellobiose blend with ipratropium bromide which was inhaled from capsules into Aerobreather at 20, 40 and 60 L/min has a lower mean particle size than the lactose blend, which is the opposite of the particle sizing results from the Aerosizer. The peaks of the distributions for the cellobiose blend were shifted to lower particle sizes than the lactose blend at all inhalation rates. The difference could reflect differences in adhesion strength, particle size distribution or size selection of retained particles.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:695761 CAPLUS

DOCUMENT NUMBER: 137:237718

TITLE: Inhalant compositions containing

anticholinergics and PDE IV inhibitors

INVENTOR(S): Meade, Christopher John Montague; Pairet, Michel;

Pieper, Michael Paul

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT 1	10.	KI	ND D	ATE		A.	PPLI	CATI	ON NO	٥.	DATE			
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WO 20020	069945	A	2 20	0020912		W	200	02-E	P198	8	2002	0226		
WO 20020	069945	A	.3 20	0030130										
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	LS, L	r, LU,	LV, N	MA, MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
	PL, P	Γ, RO,	RU, S	SD, SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,

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             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                          DE 2001-10110772 20010307
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                       A1
                            20020912
                                           EP 2002-727329
     EP 1372649
                       A2
                            20040102
                                                            20020226
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.:
                                        DE 2001-10110772 A 20010307
                                        WO 2002-EP1988 W 20020226
OTHER SOURCE(S):
                         MARPAT 137:237718
     The invention relates to drug compns. based on anticholinergics and PDE IV
     inhibitors, to methods for their production, and to their use as inhalants for
     the treatment of respiratory tract diseases. Thus an inhalation
     powder was composed of capsules that contained (µg/
     capsule): tiotropium bromide 21.7; AWD-12-281
     200; lactose 4778.3.
     ANSWER 4 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
1.4
                         2002:487380 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         137:68157
                         Inhalant compositions containing
TITLE:
                         anticholinergics and dopamine agonists
                         Pairet, Michel; Pieper, Michael Paul; Meade,
INVENTOR (S):
                         Christopher John Montague
                         Boehringer Ingelheim Pharma Kg, Germany
PATENT ASSIGNEE(S):
SOURCE:
                         PCT Int. Appl., 31 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                      KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
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                            20020627
                                           WO 2001-EP14568 20011212
     WO 2002049624
     WO 2002049624
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                            20020919
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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                                          AU 2002-35767
                       A5
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     EP 1345626
                       A2
                            20030924
                                          EP 2001-985868
                                                            20011212
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     JP 2004516264
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                                           JP 2002-550966
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     US 2002122773
                       Α1
                                           US 2001-27662
                                                            20011220
PRIORITY APPLN. INFO.:
                                        DE 2000-10063957 A 20001220
                                        US 2000-257221P P 20001221
                                        WO 2001-EP14568 W 20011212
     The invention relates to novel pharmaceutical compns. based on
AB
     anticholinergic agents and dopamine agonists, a method for the production of
     the compns. and the use of the same for the treatment of respiratory tract
     diseases. Thus an inhalation powder contained per
     capsule (µg): tiotropium bromide 21.7;
     viozan 270; lactose 4708.3.
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ANSWER 5 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                       2002:465799 CAPLUS
DOCUMENT NUMBER:
                        137:37667
TITLE:
                        Inhalant compositions containing
                        anticholinergics and ciclesonide corticosteroid
                        Pairet, Michel; Pieper, Michael Paul; Meade,
INVENTOR(S):
                        Christopher John Montague
PATENT ASSIGNEE(S):
                        Boehringer Ingelheim Pharma K.-G., Germany
SOURCE:
                        PCT Int. Appl., 26 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                KIND DATE
    PATENT NO.
                                    APPLICATION NO. DATE
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                                         ______
    WO 2002047668 A2 20020620
WO 2002047668 A3 20020829
                                       WO 2001-EP14579 20011212
                           20020620
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                    A1 20020620 DE 2000-10062712 20001215
    DE 10062712
    US 2002183292
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                                        US 2001-86145 20011019
                                      AU 2002-31691 20011212
EP 2001-991827 20011212
    AU 2002031691
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                           20020624
                    A2 20031008
    EP 1349549
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    JP 2004515528
                     T2 20040527
                                         JP 2002-549242
                                                          20011212
PRIORITY APPLN. INFO.:
                                      DE 2000-10062712 A 20001215
                                      DE 2000-10054042 A 20001031
                                      US 2000-253613P P 20001128
                                      US 2000-257220P P 20001221
                                      WO 2001-EP14579 W 20011212
AB
    The invention relates to novel medicament compns. based on
    anticholinesterase drugs and on ST-126, to methods for their production, and
    to their use in treating respiratory tract diseases. Thus an inhalation
    powder contained per capsule (µg): tiotropium
    bromide x H2O 22.5; ciclesonide 250; lactose 4727.5.
    ANSWER 6 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                        2002:465798 CAPLUS
DOCUMENT NUMBER:
                        137:52368
TITLE:
                        Inhalant compositions containing
                        anticholinergics and ST-126 corticosteroid
INVENTOR(S):
                        Pairet, Michel; Pieper, Michael Paul; Meade,
                        Christopher John Montague
PATENT ASSIGNEE(S):
                        Boehringer Ingelheim Pharma K.-G., Germany
                        PCT Int. Appl., 26 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
                        German
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                KIND DATE
                                        APPLICATION NO. DATE
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WO 2002047667 A2

WO 2002047667

20020620

A3 20021024

WO 2001-EP14567 20011212

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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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     US 2002183292
     AU 2002024926
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                             20020624
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PRIORITY APPLN. INFO.:
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                                                            Р
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                                          US 2000-257220P
                                                            Р
                                                               20001221
                                          WO 2001-EP14567 W 20011212
     The invention relates to novel medicament compns. based on
AB
     anticholinesterase drugs and on ST-126 corticosteroid, to methods for
     their production, and to their use in treating respiratory tract diseases.
     Thus an inhalation powder contained per capsule
            tiotropium bromide x H2O 22.5; ST-126 250;
     (μg):
     lactose 4727.5.
     ANSWER 7 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
L4
ACCESSION NUMBER:
                          2002:368320 CAPLUS
DOCUMENT NUMBER:
                          136:374855
                          Inhalant compositions containing
TITLE:
                          tiotropium salts and salmeterol salts
                          Schmelzer, Christel; Nagel, Juergen
INVENTOR(S):
                          Boehringer Ingelheim Pharma K.-G., Germany
PATENT ASSIGNEE(S):
SOURCE:
                          PCT Int. Appl., 36 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          German
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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                       KIND DATE
                                             APPLICATION NO. DATE
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                             20020516
                                             WO 2001-EP12962 20011109 ·
     WO 2002038154
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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                                                               20011109
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     EP 1335728
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     US 2002193392
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                             20021219
                                             US 2001-54567
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WO 2001-EP12962 W AB The invention relates to novel drug compns. based on tiotropium

NO 2003-2111

DE 2000-10056104 A

US 2000-251603P P

20030512

20001113

20001206

20011109

20030708

NO 2003002111

PRIORITY APPLN. INFO.:

Α

salts and on salmeterol salts, a method for their production and their use for treating respiratory conditions. Thus an inhalation powder contained per capsule (µg): tiotropium bromide 10.8; salmeterol x 1/2 H2SO4 27.9; Lactose 4961.3. THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

ANSWER 8 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN L4

4

ACCESSION NUMBER:

2002:353268 CAPLUS

DOCUMENT NUMBER:

REFERENCE COUNT:

136:374832

TITLE:

Inhalant compositions containing anticholinergics and corticosteroids

INVENTOR(S):

Pairet, Michel; Pieper, Michael Paul; Meade,

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

APPLICATION NO. DATE

Christopher John Montague; Reichl, Richard; Schmelzer,

Christel

PATENT ASSIGNEE(S):

Boehringer Ingelheim Pharma K.-G., Germany

SOURCE:

PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent German

LANGUAGE:

KIND DATE

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

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    WO 2002036106
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                    A3 20020919
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
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    US 2003181478
                      A1
                           20030925
                                         US 2003-395777
                                                          20030324
PRIORITY APPLN. INFO.:
                                      DE 2000-10054042 A 20001031
                                      DE 2000-10062712 A 20001215
                                      US 2000-253613P P 20001128
                                      US 2000-257220P P 20001221
                                      DE 2001-10138272 A 20010810
                                      US 2001-314599P P 20010824
                                      WO 2001-EP12511 W 20011023
                                      US 2001-40196
                                                       B1 20011025
```

The invention relates to novel drug compns. based on anticholinergics and AB corticosteroids, a method for their production and their use for treating respiratory conditions. Thus an inhalation powder contained per capsule (µg): tiotropium bromide 21.7; budesonide 200; Lactose 4778.3.

ANSWER 9 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:689613 CAPLUS

DOCUMENT NUMBER:

136:390861

TITLE:

Effective delivery of particles with the HandiHaler dry powder inhalation system over a range of chronic obstructive pulmonary disease

severity

AUTHOR(S): Chodosh, Sanford; Flanders, Judith S.; Kesten, Steven;

Serby, Charles W.; Hochrainer, Dieter; Witek, Theodore

J., Jr.

CORPORATE SOURCE: Veterans Administration Outpatient Clinic, Pulmonary

Research, Boston, MA, USA

SOURCE: Journal of Aerosol Medicine (2001), 14(3), 309-315

CODEN: JAEMEP; ISSN: 0894-2684

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

The HandiHaler is a dry powder breath activated inhaler system developed for inhalation therapy for patients with airway disease. Its operation is based on the evacuation of powder from a pierced capsule. We sought to document the inspiratory flow rates attained by patients inspiring through the HandiHaler with various degrees of airflow limitation. Subjects with stable chronic obstructive pulmonary disease (COPD) were the study's population. An in vitro study of fine particle dose was conducted using an Andersen Cascade Impactor to assess medication delivery at low inspiratory flow rates. Subsequently, an in vivo study was conducted to determine inspiratory flow rates in patients with COPD as measured through a pneumotach with a custom coupler device with and without the HandiHaler. Patients were classified into three approx. equal groups of spirometric severity ranging from mild (46-65% predicted normal forced expiratory volume in 1 s [FEV1]), to moderate (28-45%) to severe (≤27%). The in vitro study indicated delivery of medication at flow rates as low as 20 L/min. Twenty-six men completed the in vivo study (age 66.9 ± 10.9 yr, FEV1 = 1.02 ± 0.451 .). The median peak inspiratory flow rates attained in the mild (n = 8), moderate (n = 10), and severe (n = 8) categories were 45, 45.6, and 35.4 L/min resp. The min. peak inspiratory flow rates in the three groups were 28.2, 21.6 and 20.4 L/min. The HandiHaler device effectively delivers particles to the lung over a wide range of airflow limitation in patients with COPD.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States

PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators.

More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2001:67205 USPATFULL

TITLE: Supercritical fluid extraction of mould lubricant from

hard shell capsules

INVENTOR(S): Horhota, Stephen T., Brookfield, CT, United States

Saim, Said, New Milford, CT, United States

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield,

CT, United States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6228394 B1 20010508 APPLICATION INFO.: US 1998-157267 19980921 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1997-62099P 19971014 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Seidleck, Brian K.

LEGAL REPRESENTATIVE: Raymond, Robert P., Stempel, Alan R., Devlin,

Mary-Ellen M.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 24 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 1487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Hard shelled capsules and dry, powdered

pharmaceutical formulations are treated with supercritical fluids to

remove impurities such as mold lubricants and moisture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 13 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 1417975 EUROPATFULL EW 200420 FS OS

TITLE: REMEDIES FOR DISEASES WITH BONE MASS LOSS HAVING EP4

AGONIST AS THE ACTIVE INGREDIENT.

MITTEL ZUR BEHANDLUNG VON ERKRANKUNGEN, DIE MIT KNOCHENSCHWUND EINHERGEHEN, MIT EP4 AGONIST ALS

WIRKSTOFF.

MEDICAMENTS CONTENANT UN AGONISTE DE EP4 EN TANT QUE PRINCIPE ACTIF DESTINES AUX MALADIES ASSOCIEES A UNE

PERTE DE LA MASSE OSSEUSE.

INVENTOR(S): MARUYAMA, Toru, c/o Minase Res. Inst., Ono Pharm., Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KOBAYASHI, Kaoru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

KAMBE, Tohru, c/o Minase Res. Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

MARUYAMA, Takayuki, c/o Minase Res. Inst., Ono Pha, Co.,

Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Miishima-gun,

Osaka 618-8585, JP;

YOSHIDA, Hideyuki, c/o Minase Res Inst, Ono Pharm., Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

NISHIURA, Akio, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP;

ABE, Nobutaka, c/o Minase Res Inst., Ono Pharm, Co., Ltd., 1-1, Sakurai 3-chome, Shimamoto-cho, Mishima-gun,

Osaka 618-8585, JP

PATENT ASSIGNEE(S): ONO PHARMACEUTICAL CO., LTD., 1-5, Doshomachi 2-chome,

Chuo-ku, Osaka-shi, Osaka 541-8526, JP

PATENT ASSIGNEE NO: 435424

AGENT: Henkel, Feiler & Haenzel, Moehlstrasse 37, 81675

Muenchen, DE

AGENT NUMBER: 100401

OTHER SOURCE: MEPA2004039 EP 1417975 A1 0322

SOURCE: Wila-EPZ-2004-H20-T1b

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Japanisch; Veroeffentlichung in Englisch;

Verfahren in Englisch

DESIGNATED STATES: R AT; R BE; R BG; R CH; R CY; R CZ; R DE; R DK; R EE; R

ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R SK; R TR; R AL; R LT; R LV; R

MK; R RO; R SI

PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale

Anmeldung)

PATENT INFORMATION:

	PAT	TENT NO	KIND	DATE
	EP	1417975	A1	20040512
'OFFENLEGUNGS' DATE:				20040512
APPLICATION INFO.:	ΕP	2002-747707		20020722
PRIORITY APPLN. INFO.:	JP	2001-2001222148		20010723
	JP	2001-2001239895		20010807
	JP	2002-2002056449		20020301
RELATED DOC. INFO.:	WO	02-JP7385	02072	22 INTAKZ
	WO	2003009872	03020	6 INTPNR

L4 ANSWER 13 OF 13 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 1391200 EUROPATFULL EW 200409 FS OS

TITLE: DRUG PREPARATIONS.

ARZNEIMITTEL.

PREPARATIONS DE MEDICAMENTS.

INVENTOR(S): ONUKI, Yoichi, 2-31-7, Nakadai, Narita-shi, Chiba

286-0015, JP;

OKADA, Minoru, 4-7-20, Kioroshihigashi, Inzai-shi, Chiba

270-1323, JP;

SAKAI, Hirotaka, 1-20-6, Yotsukaido, Yotsukaido-shi,

Chiba 284-0005, JP;

KANBE, Hideyoshi, 2-21-8, Mama, Ichikawa-shi, Chiba

272-0826, JP;

MIZUNO, Hiroyuki, 1-24-19, Hiyoshidai, Tomisato-machi,

Inba-gun, Chiba 286-0201, JP;

IMAMORI, Katsumi, 2521-86, Shimoshizushinden,

Yotsukaido-shi, Chiba 284-0006, JP

PATENT ASSIGNEE(S): SSP Co., Ltd., 12-4, Nihonbashi-hamacho 2-chome,

Chuo-ku, Tokyo 103-8481, JP

PATENT ASSIGNEE NO: 2557581

AGENT: Hartz, Nikolai, Waechtershaeuser & Hartz,

Patentanwaelte, Weinstrasse 8, 80333 Muenchen, DE

AGENT NUMBER: 85663

OTHER SOURCE: MEPA2004017 EP 1391200 A1 0014

SOURCE: Wila-EPZ-2004-H09-T1b

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Japanisch; Veroeffentlichung in Englisch;

Verfahren in Englisch

DESIGNATED STATES: R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R

GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R

SE; R TR; R AL; R LT; R LV; R MK; R RO; R SI

PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale

Anmeldung)

PATENT INFORMATION:

PATENT NO KIND DATE

EP 1391200 A1 20040225

'OFFENLEGUNGS' DATE: 20040225

APPLICATION INFO.: EP 2002-726486 20020524

PRIORITY APPLN. INFO.: JP 2001-2001156853 20010525

RELATED DOC. INFO.: WO 200JP2005041 020524 INTAKZ

WO 2002096405 021205 INTPNR

=> d his

L2

(FILE 'HOME' ENTERED AT 16:10:09 ON 10 JUN 2004)

FILE 'CAPLUS, USPATFULL, EUROPATFULL, JAPIO, MEDLINE, BIOSIS, EMBASE' ENTERED AT 16:10:45 ON 10 JUN 2004

L1 60 S INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPI

29 S L1 AND (PARTICLE# OR PARTICULATE#)

L3 19 S L2 AND POWDER?

L4 13 S L3 AND CAPSULE?

L5 5 S L4 AND (COPD OR ASTHMA)

L6 2 S L5 AND (METHOD OR PROCESS) AND (MAKING OR PREPARATION OR MAN

FILE 'STNGUIDE' ENTERED AT 16:22:26 ON 10 JUN 2004

FILE 'CAPLUS, USPATFULL, JAPIO, EUROPATFULL, BIOSIS, EMBASE, MEDLINE' ENTERED AT 16:28:44 ON 10 JUN 2004

=> file uspatful

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SINCE FILE TOTAL
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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

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ENTRY SESSION
-6.24
-6.24

FILE 'USPATFULL' ENTERED AT 16:45:49 ON 10 JUN 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 10 Jun 2004 (20040610/PD) FILE LAST UPDATED: 10 Jun 2004 (20040610/ED) HIGHEST GRANTED PATENT NUMBER: US6748598

HIGHEST APPLICATION PUBLICATION NUMBER: US2004111778
CA INDEXING IS CURRENT THROUGH 10 Jun 2004 (20040610/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 10 Jun 2004 (20040610/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2004

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2004

- >>> USPAT2 is now available. USPATFULL contains full text of the <<<
- >>> original, i.e., the earliest published granted patents or <<<
- >>> applications. USPAT2 contains full text of the latest US <<<
- >>> publications, starting in 2001, for the inventions covered in <<<

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>>> USPATFULL. A USPATFULL record contains not only the original
    published document but also a list of any subsequent
                                                                     <<<
>>>
    publications. The publication number, patent kind code, and
>>>
    publication date for all the US publications for an invention
                                                                     <<<
    are displayed in the PI (Patent Information) field of USPATFULL
>>>
    records and may be searched in standard search fields, e.g., /PN, <<<
>>>
>>> /PK, etc.
    USPATFULL and USPAT2 can be accessed and searched together
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>>> Use USPATALL when searching terms such as patent assignees,
                                                                     <<<
>>> classifications, or claims, that may potentially change from
                                                                     <<<
>>> the earliest to the latest publication.
                                                                     <<<
This file contains CAS Registry Numbers for easy and accurate
substance identification.
=> s inhalant and (tiotropium or (tiotropium bromide) or (tiotropium bromide
monhydrate))
         1928 INHALANT
          236 TIOTROPIUM
          236 TIOTROPIUM
       145139 BROMIDE
          133 TIOTROPIUM BROMIDE
                 (TIOTROPIUM (W) BROMIDE)
          236 TIOTROPIUM
       145139 BROMIDE
          156 MONHYDRATE
            O TIOTROPIUM BROMIDE MONHYDRATE
                 (TIOTROPIUM (W) BROMIDE (W) MONHYDRATE)
L7
           13 INHALANT AND (TIOTROPIUM OR (TIOTROPIUM BROMIDE) OR (TIOTROPIUM
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       552872 PARTICLE#
       156148 PARTICULATE#
L8
            9 L7 AND (PARTICLE# OR PARTICULATE#)
=> s 12 and powder?
       437594 POWDER?
            3 L2 AND POWDER?
L9
=> d 19 1-3 ibib abs
    ANSWER 1 OF 3 USPATFULL on STN
1.9
                       2004:132947 USPATFULL
ACCESSION NUMBER:
TITLE:
                       Medical aerosol formulations
                       Muller-Walz, Rudi, Schopfheim, GERMANY, FEDERAL
INVENTOR(S):
                       REPUBLIC OF
                       Niederlander, Carsten, Riehen, SWITZERLAND
                                        KIND
                                                DATE
                            NUMBER
                       -----
                       US 2004101483 A1 20040527
PATENT INFORMATION:
                       US 2003-473874
APPLICATION INFO.:
                                        A1 20030930 (10)
                       WO 2002-CH145
                                              20020311
                             NUMBER DATE
                       -----
                       CH 2001-60101 20010330
PRIORITY INFORMATION:
                       CH 2001-152701
                                         20010820
                       Utility
DOCUMENT TYPE:
```

APPLICATION

FILE SEGMENT:

<<<

EDWARDS & ANGELL, LLP, P.O. BOX 55874, BOSTON, MA, LEGAL REPRESENTATIVE:

02205

NUMBER OF CLAIMS: 53 EXEMPLARY CLAIM: 1 986 LINE COUNT:

Calcium salts, magnesium salts and zinc salts of palmitic acid and of AR stearic acid are suited for use as solid auxiliary agents for medical suspension aerosol formulations based on hydrofluoroalkanes. They improve, in particular, the suspension stability, the mechanical function of the dosing valve, the dosing precision, and the chemical

stability of the active substance.

ANSWER 2 OF 3 USPATFULL on STN 1.9

ACCESSION NUMBER: 2001:75378 USPATFULL

Methods and compositions for the prevention of TITLE:

tolerance to medications

INVENTOR(S):

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States
PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER KIND DATE -----PATENT INFORMATION: US 6235725 B1 20010522 APPLICATION INFO.: US 1999-362540 19990728 19990728 (9)

> NUMBER DATE _____

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted
PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

985 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to $\beta.sub.2$ -adrenergic agonists. The methods and compositions according to the invention are also useful as analytical tools for functional studies and as combination therapeutic tools.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2001:67205 USPATFULL

TITLE: Supercritical fluid extraction of mould lubricant from

hard shell capsules

Horhota, Stephen T., Brookfield, CT, United States INVENTOR(S):

Saim, Said, New Milford, CT, United States

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield,

CT, United States (U.S. corporation)

NUMBER KIND DATE -----US 6228394 B1 20010508 US 1998-157267 19980921 PATENT INFORMATION: APPLICATION INFO.: 19980921 (9)

> NUMBER DATE -----

PRIORITY INFORMATION: US 1997-62099P 19971014 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Page, Thurman K.

ASSISTANT EXAMINER:

Seidleck, Brian K.

LEGAL REPRESENTATIVE:

Raymond, Robert P., Stempel, Alan R., Devlin,

Mary-Ellen M.

NUMBER OF CLAIMS:

21

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

24 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT:

1487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Hard shelled capsules and dry, powdered pharmaceutical

formulations are treated with supercritical fluids to remove impurities

such as mold lubricants and moisture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 18 1-9 ibib abs

ANSWER 1 OF 9 USPATFULL on STN L8

ACCESSION NUMBER:

2004:132947 USPATFULL

TITLE:

Medical aerosol formulations

INVENTOR(S):

Muller-Walz, Rudi, Schopfheim, GERMANY, FEDERAL

REPUBLIC OF

Niederlander, Carsten, Riehen, SWITZERLAND

		NUMBER	KIND	DATE	
PATENT INFORMATION: APPLICATION INFO.:		2004101483 2003-473874	A1 A1	20040527	(10)
	WO	2002-CH145		20020311	

		NUMBER	DATE
PRIORITY	INFORMATION:	CH 2001-60101	20010330
		CH 2001-152701	20010820

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EDWARDS & ANGELL, LLP, P.O. BOX 55874, BOSTON, MA,

02205

NUMBER OF CLAIMS: 53 EXEMPLARY CLAIM: 1 LINE COUNT: 986

AB Calcium salts, magnesium salts and zinc salts of palmitic acid and of stearic acid are suited for use as solid auxiliary agents for medical suspension aerosol formulations based on hydrofluoroalkanes. They improve, in particular, the suspension stability, the mechanical function of the dosing valve, the dosing precision, and the chemical stability of the active substance.

ANSWER 2 OF 9 USPATFULL on STN L8

ACCESSION NUMBER:

2003:283185 USPATFULL

TITLE:

Nitrosated and nitrosylated compounds and compositions

and their use for treating respiratory disorders

INVENTOR(S):

Garvey, David S., Dover, MA, UNITED STATES Letts, L. Gordon, Dover, MA, UNITED STATES Renfroe, H. Burt, Wellesley, MA, UNITED STATES Richardson, Stewart K., Ashford, CT, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003199529	A1	20031023	
APPLICATION INFO.:	US 2003-428936	A1	20030505	(10)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-689851, filed on 13 Oct

2000, GRANTED, Pat. No. US 6579863 Division of Ser. No. US 1998-157242, filed on 18 Sep 1998, GRANTED, Pat. No. US 6197762 Division of Ser. No. US 1996-620882, filed on 22 Mar 1996, GRANTED, Pat. No. US 5824669 Division of Ser. No. WO 1997-US4319, filed on 19 Mar 1997,

PENDING

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EDWARD D GRIEFF, HALE & DORR LLP, 1455 PENNSYLVANIA

AVE, NW, WASHINGTON, DC, 20004

NUMBER OF CLAIMS: 58 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 29 Drawing Page(s)

LINE COUNT: 2520

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β -agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β -agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.cndot.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:176162 USPATFULL

TITLE: Medicinal aerosol formulations

INVENTOR(S): Keller, Manfred, Bad Krozingen, GERMANY, FEDERAL

REPUBLIC OF

Herzog, Kurt, Basel, SWITZERLAND

Muller-Walz, Rudi, Schopfheim, GERMANY, FEDERAL

REPUBLIC OF

Kraus, Holger, Rickenbach, SWITZERLAND

PATENT ASSIGNEE(S): Jago Research AG, Muttenz, SWITZERLAND (non-U.S.

corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION: US	6585958	B1	20030701	
WO	2000006121		20000210	
APPLICATION INFO.: US	2001-744379		20010413	(9)
WO	1999-CH337		19990722	

NUMBER DATE

PRIORITY INFORMATION: CH 1998-1565 19980724

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Hartley, Michael G. ASSISTANT EXAMINER: Haghighatian, M. LEGAL REPRESENTATIVE: Selitto, Behr & Kim

NUMBER OF CLAIMS: 51 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 995

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A pressure-liquefied propellant mixture for aerosols, comprising

dinitrogen monoxide and a hydrofluoroalkane having 1 to 3 carbon atoms, in particular 1,1,1,2-tetrafluoroethane and/or 1,1,1,2,3,3,3-heptafluoropropane, makes possible an improvement in the wetting properties of pharmaceutically active compounds, whereby the formulation problems existing with hydrofluoroalkanes can be overcome with respect to suspension and solution aerosols and thus improved medicinal aerosol formulations can be obtained. With the aid of dinitrogen monoxide, it is also possible to influence the pressure and thus the particle size distribution specifically and, by displacement of oxygen from the hydrofluoroalkanes, to improve the storage stability of oxidation-sensitive active compounds. If desired, the propellant mixture can additionally contain carbon dioxide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:161952 USPATFULL

TITLE: Nitrosated and nitrosylated compounds and compositions

and their use for treating respiratory disorders

INVENTOR(S): Garvey, David S., Waltham, MA, United States

Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States

PATENT ASSIGNEE(S): Nitromed, Inc., Bedford, MA, United States (U.S.

corporation)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-157242, filed on 18 Sep

1998, now patented, Pat. No. US 6197762 Division of Ser. No. US 1996-620882, filed on 22 Mar 1996, now patented, Pat. No. US 5824669 Continuation of Ser. No.

WO 1997-US4319, filed on 19 Mar 1997

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Badio, Barbara P. LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 28 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 2028

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β-agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β-agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.cndot.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2001:75378 USPATFULL

TITLE: Methods and compositions for the prevention of

tolerance to medications

INVENTOR(S): Ahmed, Tahir, Coral Gables, FL, United States

PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., Miami, FL, United

States (U.S. corporation)

NUMBER KIND DATE -----

PATENT INFORMATION: US 6235725 B1 20010522 APPLICATION INFO.: US 1999-362540 19990728 19990728 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-106507P 19981030 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Peselev, Elli

LEGAL REPRESENTATIVE: Levi-Minzi, Simona A.

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention pertains to the identification of moieties and methods of using the same for preventing tolerance to bronchodilators. More specifically, the present invention pertains to the identification of compositions and methods which are capable of preventing tolerance to β .sub.2 -adrenergic agonists. The methods and compositions

according to the invention are also useful as analytical tools for

functional studies and as combination therapeutic tools.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 6 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2001:67205 USPATFULL

TITLE: Supercritical fluid extraction of mould lubricant from

hard shell capsules

INVENTOR(S): Horhota, Stephen T., Brookfield, CT, United States

Saim, Said, New Milford, CT, United States

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield,

CT, United States (U.S. corporation)

NUMBER KIND DATE -----PATENT INFORMATION:

US 6228394 B1 20010508 US 1998-157267 19980921 APPLICATION INFO.: 19980921 (9)

NUMBER DATE -----

PRIORITY INFORMATION: US 1997-62099P 19971014 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Page, Thurman K. ASSISTANT EXAMINER: Seidleck, Brian K.

LEGAL REPRESENTATIVE: Raymond, Robert P., Stempel, Alan R., Devlin,

Mary-Ellen M.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 24 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 1487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Hard shelled capsules and dry, powdered pharmaceutical formulations are treated with supercritical fluids to remove impurities such as mold

lubricants and moisture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 7 OF 9 USPATFULL on STN L8

ACCESSION NUMBER: 2001:42141 USPATFULL

Nitrosated and nitrosylated compounds, and compositions TITLE:

and their use for treating respiratory disorders

Garvey, David S., Dover, MA, United States INVENTOR (S):

Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States

NitroMed, Inc., Bedford, MA, United States (U.S. PATENT ASSIGNEE(S):

corporation)

NUMBER KIND DATE _____

US 37116 E1 20010327 US 5824669 19981020 PATENT INFORMATION:

US 5824669 19981020 (Original) US 1998-219476 19981223 (9) US 1996-620882 19960322 (Original) APPLICATION INFO.:

DOCUMENT TYPE: Reissue FILE SEGMENT: Granted

FILE SEGMENT: Granted
PRIMARY EXAMINER: Rotman, Alan L. LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 39 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 1916

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β -agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β -agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.circle-solid.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2001:33259 USPATFULL

TITLE: Nitrosated and nitrosylated steroids compositions, and

methods for treating respiratory disorders

INVENTOR(S): Garvey, David S., Waltham, MA, United States Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States

Richardson, Stewart K., Ashford, CT, United States NitroMed, Inc., Bedford, MA, United States (U.S.

corporation)

NUMBER KIND DATE -----US 6197762 B1 20010306 US 1998-157242 19980918 (9) PATENT INFORMATION:

APPLICATION INFO.:

RELATED APPLN. INFO.: Division of Ser. No. US 1996-620882, filed on 22 Mar 1996, now patented, Pat. No. US 5824669 Continuation of

Ser. No. WO 1997-US4319, filed on 19 Mar 1997

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

Rotman, Alan L. PRIMARY EXAMINER: ASSISTANT EXAMINER: Desai, Rita LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 16

PATENT ASSIGNEE(S):

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 1841

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β-agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β-agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.cndot.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1998:128257 USPATFULL

TITLE: Nitrosated and nitrosylated compounds and compositions

and their use for treating respiratory disorders

INVENTOR(S): Garvey, David S., Dover, MA, United States

Letts, L. Gordon, Dover, MA, United States Renfroe, H. Burt, Wellesley, MA, United States Richardson, Stewart K., Ashford, CT, United States

PATENT ASSIGNEE(S): NitroMed, Inc., Bedford, MA, United States (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5824669 19981020 APPLICATION INFO.: US 1996-620882 19960322 (8)

APPLICATION INFO.: US 1996-620882 19960322 DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Rotman, Alan L.
LEGAL REPRESENTATIVE: Hale and Dorr LLP

NUMBER OF CLAIMS: 19 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 29 Drawing Figure(s); 29 Drawing Page(s)

LINE COUNT: 1812

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are (i) compounds of a steroid, a β-agonist, an anticholinergic, a mast cell stabilizer and a phosphodiesterase (PDE) inhibitor directly or indirectly linked to a NO or NO.sub.2 group or a group which stimulates endogenous production of NO or EDRF in vivo; (ii) compositions of steroids, β-agonists, anticholinergics, mast cell stabilizers and PDE inhibitors, which can optionally be substituted with at least one NO or NO.sub.2 moiety or a group which stimulates endogenous production of NO or EDRF in vivo, and a compound that donates, transfers or releases nitric oxide as a charged species, i.e., nitrosonium (NO.sup.+) or nitroxyl (NO.sup.-), or as the neutral species, nitric oxide (NO.circle-solid.) or that stimulates endogenous production of NO or EDRF in vivo; and (iii) uses for them in preventing and/or treating respiratory disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.